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Waste Water Flow Control Based on Iot Model

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Abstract: *This article on IoT (Internet of Things) technologies based sewage the waters spending control to do system presented In the article, the wastewater of the waters monitoring consumption and management IoT technologies for of use advantages seeing IoT system through sewage waters and their cleaning processes in real time is observed, this and resources effective to manage and ecological security to provide opportunity gives. In the study sensors and IoT systems each other integration, data collection and analysis to do processes, as well as the system efficiency evaluated. Article , IoT -based smart monitoring systems using sewage the waters management future and ecological in terms of useful solutions presented The system work principle and his/her practical application , this including economic and ecological results , discussion The article is about the field important problems solution using IoT technologies in use offer will reach.*

Keywords: *IoT, wastewater water, consumption control to do, smart monitoring, real time mode, sensor technologies, environmental security, water resources management, data again work, automated system.*

Wastewater treatment is a process carried out to destroy harmful substances or remove them from water. Wastewater treatment is a technologically very complex production. As in any other production, this process involves raw materials (wastewater) and finished products (purified water). The reason for this complexity is that the raw materials are not only complex in their chemical composition, but can also change over time. Therefore, the selection of optimal technological schemes for wastewater treatment is a complex task due to the versatility of the impurities present in the water and the high requirements for the quality of the purified water [1].

Goals and objectives: The main goal of this study is to develop a system based on IoT technology to control wastewater consumption and analyze its effectiveness. The following tasks marked :

1. Water the waters control to do for necessary sensors and devices choice .
2. IoT network organization to and smart management system create
3. Water of the waters expense and real - time quality monitoring system working exit
4. Efficiency and economic the results evaluation [2-3].

Literature analysis. IoT technologies last in years the environment control to do and management in systems wide apply started . IoT sensors in water monitoring effective usage possible , because they are real time in mode information assembly and transmission to the possibility For example , based on IoT

worker sewage water monitoring systems , sensors using water quality , consumption and other parameters analysis in doing (Jiang et al., 2020) . Such systems using sewage of the waters expense and quality control to do , as well as water cleaning and again work processes optimization possible .

Research methods. IoT technologies in research based sewage the waters spending control to do system for following methods applies to:

1. Sensors and tools Selection : Okava of the waters temperature , pH level , cleaning level and other parameters measurement for special sensors (e.g. pH sensors , temperature sensors , current meters) are selected .
2. System architecture: IoT system with server connectable from sensors consists of sensors through taken data in real time information to the base transmitted. Base using water expense and quality parameters analysis to do and control to do done is increased.
3. Information analysis and Visualization: From sensors taken information centralized to the server transmitted. System this information analysis so that the difficulties to determine and the system effective to manage help gives.

When choosing wastewater treatment methods, one can base the classification of impurities in water on the following[4].

Group I — rough dispersed impurities . This group soil , sand , clay and emulsions they enter industry from enterprises come comes out or of the soil washing as a result water to the basins falls . This particles on the surface pathogen (disease) pathogens (microorganisms, viruses) and radioactive substances to be possible. This impurities take throw for special substances using particles zoom in later to drown opportunity giver physicochemical processes Also, inert materials are used. to the surface of impurities adhesion process done increased or flotation method is used , that is cleaning in the buildings special harvest done foam through impurities remove is thrown away .

Group II — colloid impurities. They in the water small dispersed in the form of (or high molecular compounds) will be . This group substances of water color changes them. take throw for coagulants — particles stuck to grow provider substances is used .

Group III - in water melted gases and organic compounds. This group substances to the water various smells, tastes and colors gives. Cleaning the most effective from the methods one aeration — water from the air transfer, oxidizers insert (they under the influence this of the group many part no will be done) and adsorption — impurities active coal using take throw (coal) many impurities sucking takes).

Group IV — ionic dispersion level impurities. Salts, acids, alkalis to the water when falling to cations This group their dirt cleaning mainly ions various methods with to tie is based on.

Oh my. waters, human from the activity come came out and to the environment damage carrier waters as , correctly management necessary was important problem is considered . Wastewater of the waters expense and their cleaning monitoring of environmental processes, security in providing important place This In the article , IoT (Internet of Things) technologies used without sewage the waters spending control to do system offer IoT - based systems through sewage waters real -time monitoring done increase possible it will be , this and efficiency to increase and energy spending to reduce opportunity This article introduces the IoT model . based sewage waters control to do system how its operation , its structure and how schemes with performance seeing We will go out [5-8].

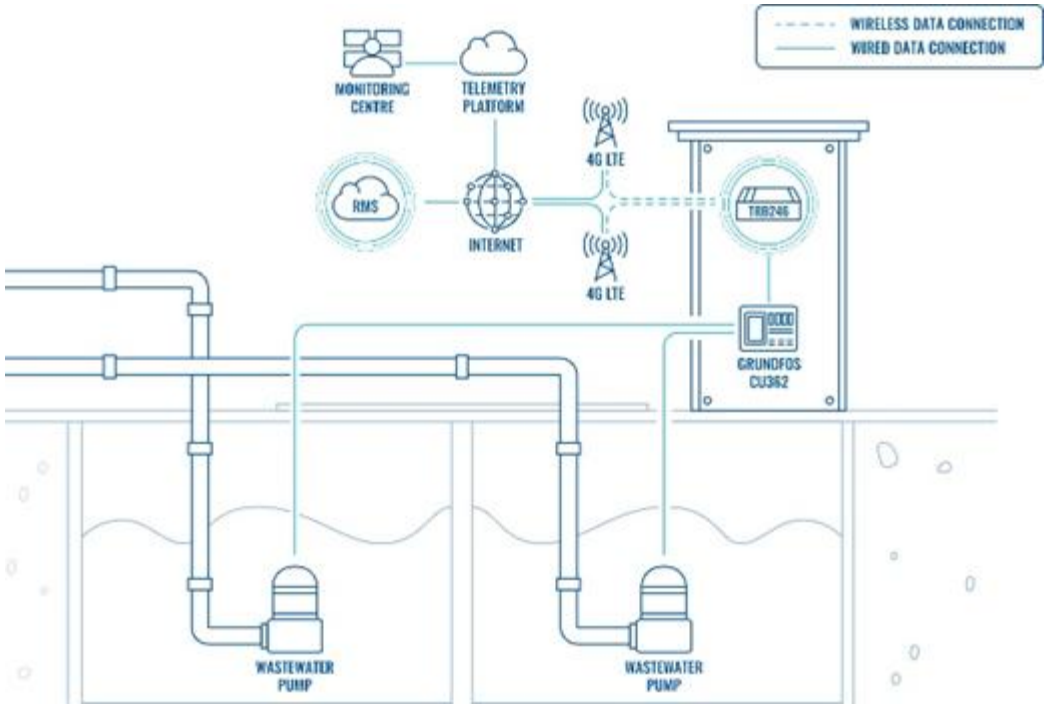

Figure 1. Iota system through water monitoring consumption process

IoT system work process as follows:

- Sensors of water every one parameter about information they collect.
- From sensors taken information transmitted and information at the base is stored.
- Analysis to do system this information analysis so, to anomalies or pollution to increase related warnings sends.
- Users (ecologists, technicians) employees) access data in real time entrance to the possibility has will be.

Results. IoT model based sewage the waters spending control to do system one row advantages presented will:

1. **Real- time monitoring:** Water expense and of quality changes in real time observation opportunity creates.
2. **Energy and resources saving:** IoT system using sewage of the waters spending optimization and energy efficiency increase possible.
3. **Ecological Security:** Wastewater the waters control to do and their that it has been neutralized provide through the environment protection to do opportunity is created.

Conclusion : IoT technologies based sewage the waters control to do system ecological the environment protection to make , water from resources effective use and to the environment the effect minimize for important solution This is real -time approach in mode water spending observation , flow of the waters the composition analysis to do and clear to the information based decisions acceptance to do opportunity IoT devices and smart sensors using gathered information automated systems through again overworked , overworked water expense and possible was of malfunctions prevent to take help This model is suitable for industrial , municipal economy and ecology in the fields application possible water resources savings , waste amount reduce and energy efficiency to increase service IoT technologies based on working issued such control systems sewage the waters again work process further effective and stable to do with

Together , the environment protection to do to develop strategies as well ground creates . Therefore, this technologies to practice wide current to in the future ecological problems solution to do and stable development to provide big contribution added.

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