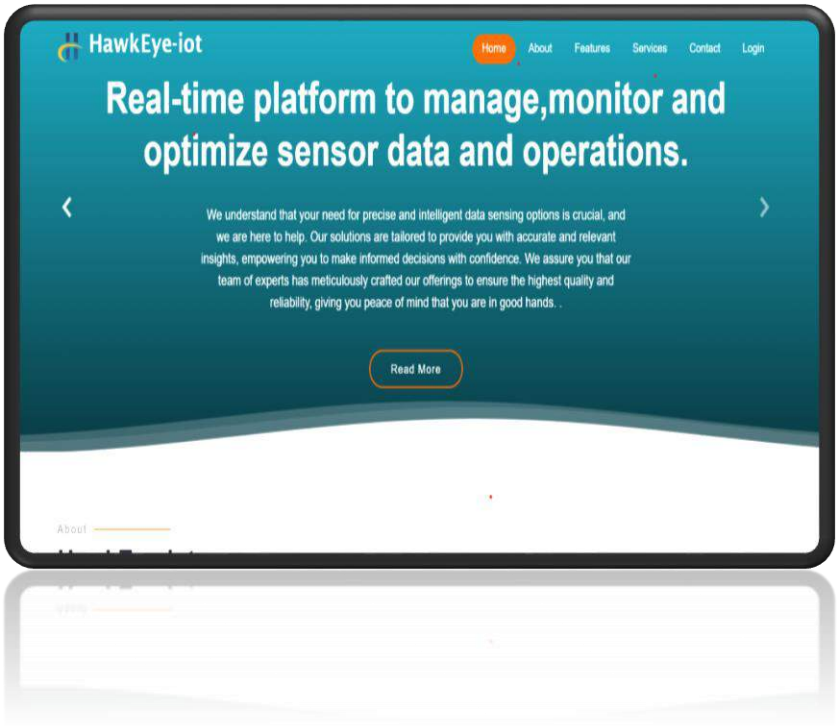
HawkEye-iot

Engineering and Environmental Solutions Pvt. Ltd.

Information Brochure



HawkEye-iot

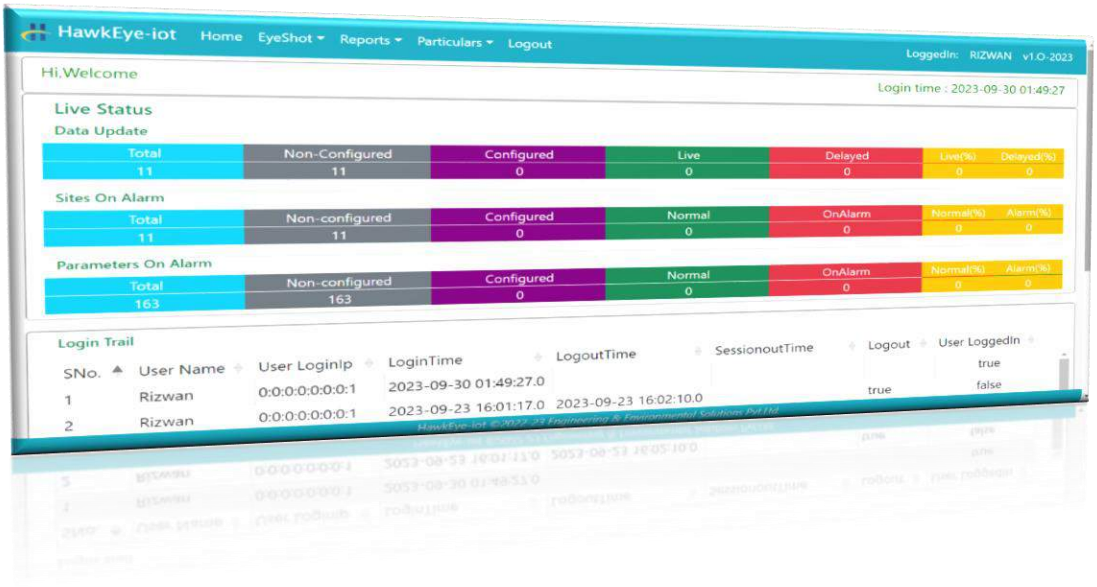
Real-time platform to manage, monitor, and optimize sensor data and operations

This Software as a Service (SaaS) platform leverages powerful edge-cloud computing technologies to provide excellent data scalability, reduced latency, rapid visualization, and user-programmable analysis. Our monitoring and analysis software tool helps you track, measure, and optimize various aspects of your project, such as performance, productivity, user behavior, and security.

HawkEye-iot Introduction

Engineering and Environmental Solutions Pvt. Ltd. has developed HawkEye-iot. This advanced software allows users to access and analyse real-time data from instruments used in various engineering and environmental projects. This powerful software provides complete control over project data, with site-specific graphs and tables. It has very low downtime and can collect data from multiple sources used in environmental, weather, agricultural, hydroelectric, tunnel, high-rise structures, bridges, mining, nuclear power, and landslide applications. If you are looking for reliable and efficient software to manage your engineering and environmental projects, HawkEye-IoT is the perfect solution.

HawkEye-iot is a top-notch data management platform that excels at collecting and processing vast amounts of data to provide meaningful information instantly, 24/7, and with instant alarms for critical events. The early warnings help take timely corrective actions to prevent damages, minimize delays, and reduce operational costs.



Opening Dashboard

HawkEye-iot Advantages

• Having a unified platform that presents all the essential project data in one place enables speedy analysis, interpretation, and informed decision-making.

• Our platform provides a unified interface to manage multiple projects efficiently. We ensure you can easily oversee and coordinate your projects from a single location.

• Offers cloud hosting and on-premise deployment options with a remote web interface.

• Data validation and Outlier Screening are indeed powerful features that effectively filter out extreme values based on pre-defined formulas.

• It is essential to have a live webcam feed from the project site to provide a reliable and accurate visual representation. With this feature, stakeholders can be confident in monitoring the project's progress in real-time and making informed decisions.

• Our platform provides a user-friendly interface that allows for interactive database interactions without manual input. All database interactions are taken care of automatically, streamlining the process for you.

• There are various visualization and analysis tools available that can be used to identify potential failure scenarios.

• Analysing data can be made easier with the use of multiple user-defined graphs on a single screen. This method provides a clear and visual way to gain insights from the data.

• You can set multiple alarms in real-time to ensure that no critical information is missed.

• Create charts combining related parameters and periods.

• You can easily see all the important information on-screen options that are customized according to your preferences.

• The user can generate a report quickly, choosing either a comprehensive or a customized format.

• For a closer inspection, please zoom in on both the X-axis and Y-axis. Additionally, make sure to scale the Y-axis accordingly.

• Calculations for dependent parameters are available to correct for factors such as temperature and to re-calibrate the sensor.

• The moving average feature is easily accessible with limitless data storage.

• Accessing historical data is made easy with the SHA-256 encrypted password-protected web interface, which can be accessed from anywhere.

• Allows third-party software to integrate and view SQL databases in read-only mode.

• Receive instant alerts via SMS or email for data discrepancies, missed inputs, or sensor failure.

HawkEye-iot Features

Multiple input sources

This system can accommodate the majority of sensor types and can handle data and documents from multiple sources:

• Data loggers are connected to geotechnical, structural, and environmental sensors.

• RF nodes & gateway, Robotic total station (geodetic data), Seismometers and accelerometers

Weather station sensors, Manual data inputs.

• Images, layout drawings, manuals, calibration sheets, other documents, and notes.

Scalable & intuitive

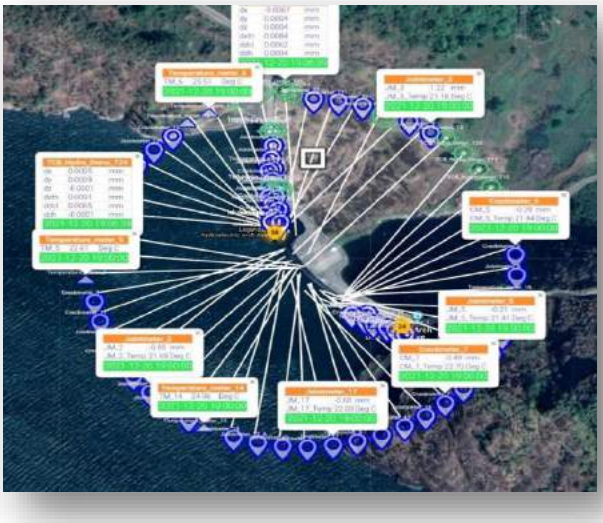
• It takes just a few clicks on the intuitive interface to configure data storage, data visualization, and alarm settings. This makes it scalable for any project size and suitable for long-term measurement.

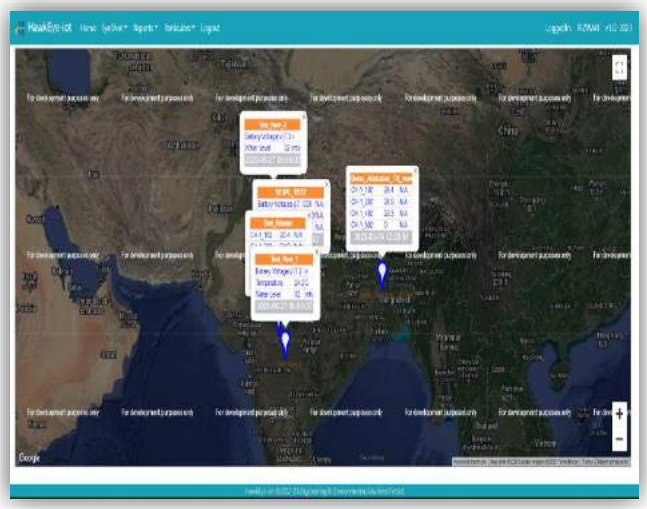
Plan Layout

• HawkEye-iot allows users to incorporate layout plans that can be with the locations of each monitoring sensor. The sensor parameter's latest data values have been presented in different colors depending on the alarm levels and update delay monitoring status. Users can easily navigate to chart graphs from the plan layout

Geo-reference map

• The Geo-referenced Google map not only displays the complete layout of the instrumentation but also provides quick access to the sensor data with a single click. The real-time data values are presented in different colors based on the alarm and monitoring status updates. The historical data graphs can also be viewed with just one click.





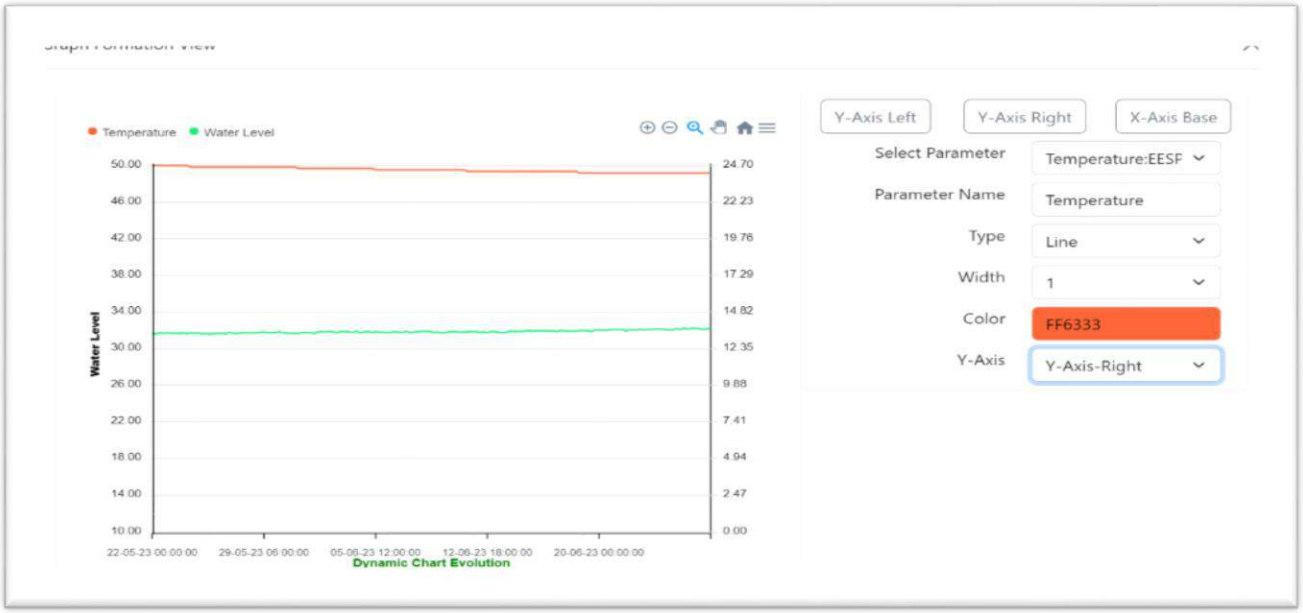
Real-time data on geo-reference map

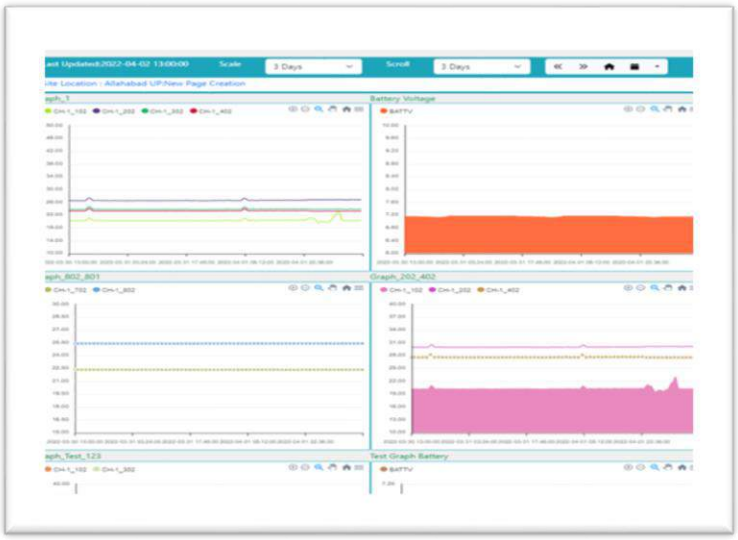
Charting Tool

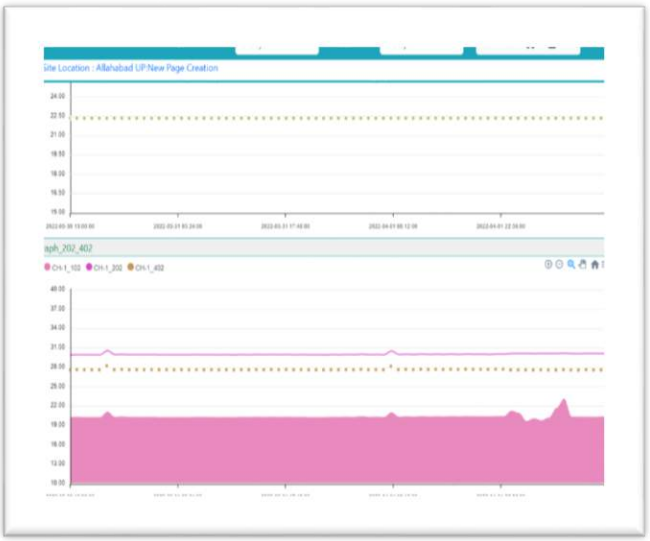
• This data visualization tool offers various types of charts, including XY Plot, Scatter (XY) Plot, Bar Chart, Histogram, and Colour Intensity Pattern chart.

• Inclinometer graphs for vertical & horizontal displacement, 3D optical survey in dx, dy, dz, ddcl, ddh, and dxth.

•The user can now save or export both the graph and its corresponding table instantly.







Multiple charts on a single page

Dynamic Comparison Graph

• User can select and compare different parameters across sites in real time.

Displacement graph

• In-place inclinometer graphs can display readings from the chain of sensors as displacement graphs or as cumulative displacement graphs.

Dependent Parameters

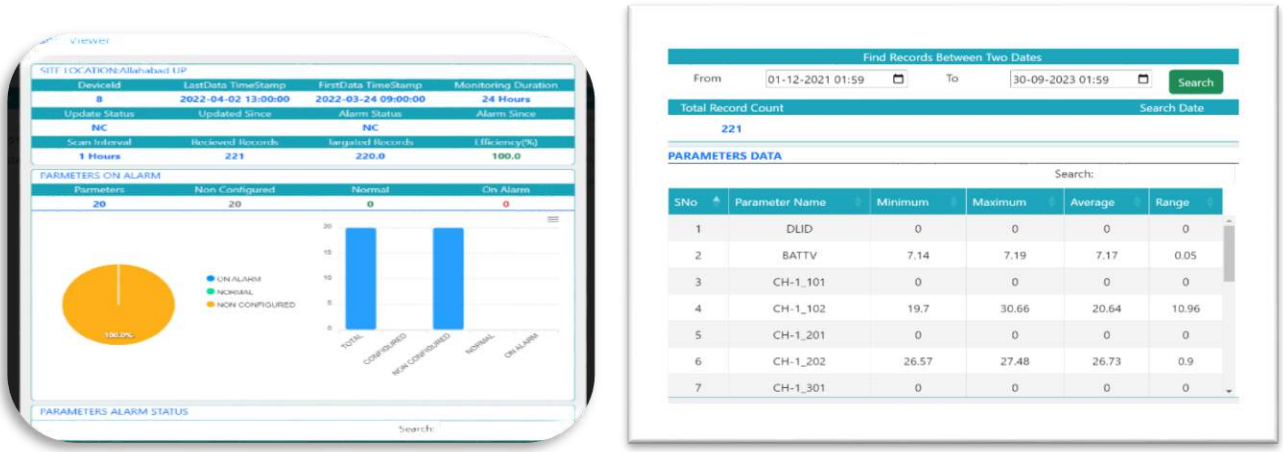
• Dependent parameters can be used to perform powerful calculations for new analyses or recalibrate data by creating a formula that takes sensor readings from one or more data loggers as input.

Data validation and Outlier screening

• HawkEye-iot enables users to eliminate outliers and filter sensor data using specific formulas to minimize random disturbances.

Historical data

• You can find summarized information regarding data updates, alarms, and the status of the site.



History data panel view

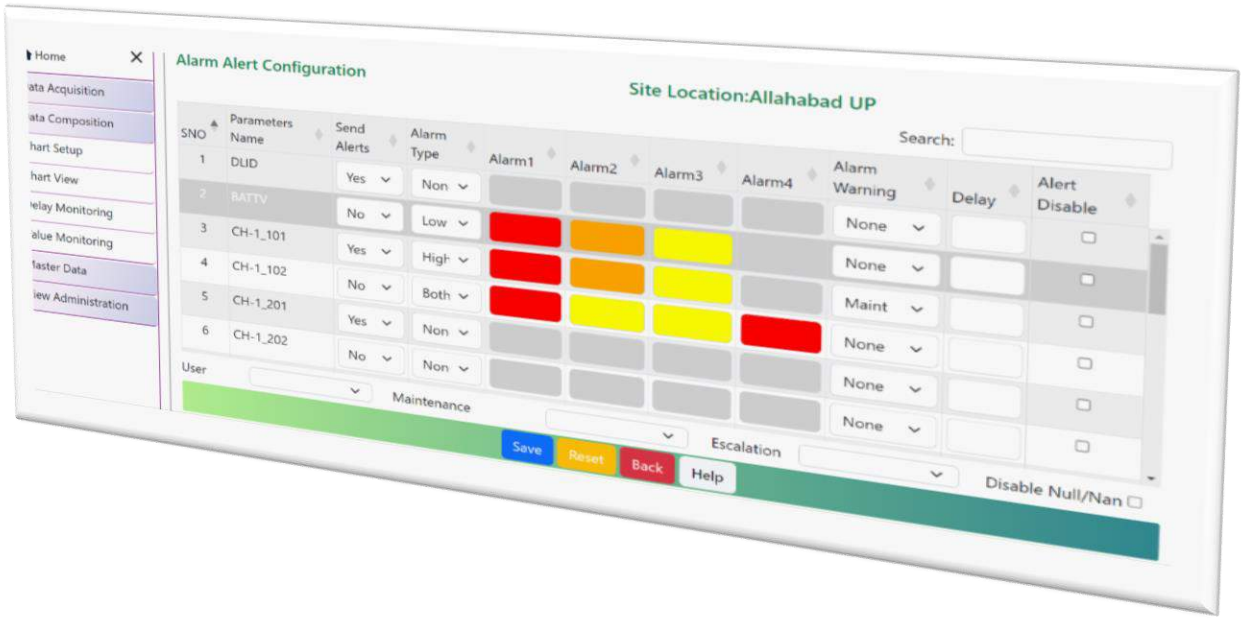
Real-time alerts

• User can set up to three alarm levels, select recipients, define maximum delay time for data collection, and customize reminder intervals and frequency.

• To ensure data quality, alarms are set up for sensor data that falls out of the expected range.

• There is a Boolean alarm available that only triggers under specific variable values and conditions.

• Alarms can escalate to multiple groups and related issues are automatically logged.



Reports

• Users can create reports containing summaries of sites, data, parameter update status, and alarm status. They can define actions to be performed on the summaries, such as calculating the average, maximum, or minimum. These reports can be exported in either a delimited text file or in Microsoft Excel format.

• The format of the report can be modified according to the user's requirements. Let us know if you need any assistance in customizing the report format.

User access and functionality

• Our platform offers robust administrative controls, which can be tailored to suit your specific needs. You can customize user access and functionality to ensure that your team has the appropriate level of access to the tools and features they need to do their job effectively.

• Any combination of user profiles can be created with varying degrees of access rights, including full access to stakeholders and limited access to other users.

HawkEye-iot Service

HawkEye-iot's sensor data management, monitoring, and analysis platform can be securely hosted on a cloud server or locally on a customer's server.

• E&E Solutions provides 24x7 web-based data management and monitoring through HawkEye-iot on a reliable cloud server with minimal downtime for multiple users.

• HawkEye-iot is a versatile software that not only provides iot device management capabilities but also offers local data management solutions. By installing HawkEye-iot locally, users can store their data in-house with the required security levels. This option is particularly useful for those who deal with sensitive data and need to comply with strict data privacy regulations. With HawkEye-iot, users can have complete control over their data, ensuring its safety and confidentiality.

The cost of the HawkEye-iot service depends on several factors: important factors to consider when setting up and configuring sensors/dataloggers at sites

• Initial set-up and Sensors/dataloggers configuration.

• Subscription options: annual or monthly rental.

• Number of sensors/parameters used at the site.

• Frequency of readings required.

• Number and types of graphs required.

• Customizations required.

• Types of alarm messages required, such as SMS, email, or both. The cost will depend on the number of SMS messages sent, which is calculated by multiplying the number of alarms generated by the number of recipients.

• Support and Maintenance provided.

• Modification and Update provided.

• Training provided.

HawkEye-iot Applications

In situations where there is a need to protect important assets and human lives, critical applications that require real-time monitoring and early warning systems become crucial. These applications are designed to detect any potential threats or risks and provide alerts promptly, allowing for prompt action to be taken. By utilizing such systems, it is

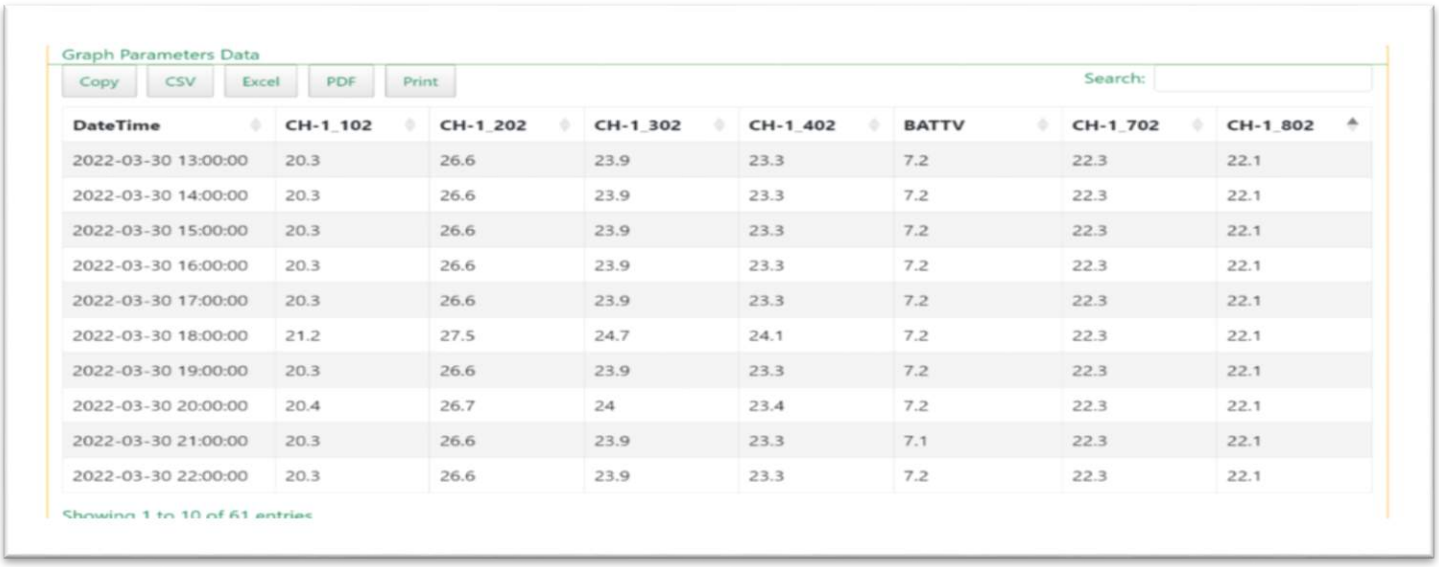
possible to minimize costs, delays, and other negative impacts that could occur in the absence of timely intervention. Therefore, these applications are essential in ensuring the safety and security of people and valuable assets.

• HawkEye-iot can conduct various types of monitoring, such as environmental monitoring, weather monitoring, agricultural monitoring, and groundwater level monitoring.

• HawkEye-iot can also monitor large civil engineering projects such as dams, barrages, tunnels, metros, rails, roads, sewers, mines, structures, high-rise buildings, landslide areas, slopes, bridges, and nuclear power plants.

• HawkEye-iot performs Current buildings, facilities, and landmarks monitoring.

• HawkEye-iot performs deformation monitoring for structures such as embankments and retaining walls to ensure their stability and safety over time.



Graph Parameters Data

Copy CSV Excel PDF Print Search:

DateTime	CH-1_102	CH-1_202	CH-1_302	CH-1_402	BATTV	CH-1_702	CH-1_802
2022-03-30 13:00:00	20.3	26.6	23.9	23.3	7.2	22.3	22.1
2022-03-30 14:00:00	20.3	26.6	23.9	23.3	7.2	22.3	22.1
2022-03-30 15:00:00	20.3	26.6	23.9	23.3	7.2	22.3	22.1
2022-03-30 16:00:00	20.3	26.6	23.9	23.3	7.2	22.3	22.1
2022-03-30 17:00:00	20.3	26.6	23.9	23.3	7.2	22.3	22.1
2022-03-30 18:00:00	21.2	27.5	24.7	24.1	7.2	22.3	22.1
2022-03-30 19:00:00	20.3	26.6	23.9	23.3	7.2	22.3	22.1
2022-03-30 20:00:00	20.4	26.7	24	23.4	7.2	22.3	22.1
2022-03-30 21:00:00	20.3	26.6	23.9	23.3	7.1	22.3	22.1
2022-03-30 22:00:00	20.3	26.6	23.9	23.3	7.2	22.3	22.1

Showing 1 to 10 of 61 entries

Data table view

Our solutions are tailored to provide you with accurate and relevant insights, empowering you to make informed decisions with confidence. We assure you that our team of experts has meticulously crafted our offerings to ensure the highest quality and reliability, giving you peace of mind that you are in good hands.

HawkEye-iot offers an all-encompassing solution for acquiring, verifying, and validating data from various engineering, infrastructure, and environmental instruments. Our approach involves processing sensor data using specific logic and consolidating it into corresponding databases. All project data can be securely stored in a centralized database that is both scalable and secure. Additionally, we provide multiple storage options, including standard databases, data warehouses, data lakes, and cloud storage. Our data storage options also include compression, encryption, backup, and recovery features.

24/7 Real-Time data collection and monitoring from various sensors used in different applications such as

Engineering *Geotechnical* *Environmental* *Agricultural* *Structural* *Weather* *Ground Water* *Telecomm*

keeping an eye on all of your projects, no matter where you are.

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