EMAIV

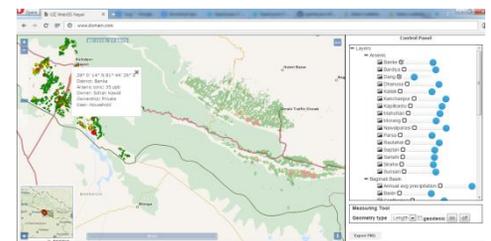## ENVIRONMENTAL MONITORING, ANALYSIS AND INTERACTIVE VISUALIZATION

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EMAIV

Environmental Monitoring, Analysis and Interactive Visualization (EMAIV) is a UIZ product, a webGIS application for monitoring, analyzing and visualizing environmental data over Internet. The framework of the EMAIV can be divided into three categories: (1) monitoring system, it aims to monitor disaster sites and get state information of environment; (2) database: manage in-situ and real time monitoring data, field investigating data, real time user input data and base data; (3) analyzing and warning system: analyze monitoring data, understand the deformation trend of the potential disaster, and release disaster warning information.

Monitoring System

EMAIV is a GIS based software for monitoring Environmental Issues with a user friendly Interface and to visualize Environmental data such as water quality, Geomorphologic data, Ecologic information, Metrologic and Hydrologic data etc., on maps, export

the map and perform operations that helps in efficient understanding of the data for better decision making.

Data Management

The monitoring data coming from in-situ and real time is stored in database as raw data for analysis and visualization, In addition, EMAIV allows user to contribute by giving information of any environmental issues that need urgent attention such as landslide, pollution, drainage break, waste etc. which is stored in

database. Considering the information given by the user, taking necessary measures to solve the problem and alerting the responsible people can be performed that play an important role monitoring the environment.

Analysis and Alert System

Data from sensors is passed directly into the analyzing and warning system along with analyzing module, alerting module, and monitoring module having different functions. The foundation of analyzing and warning system is the analyzing module. Analyzing and warning system mainly aims to analyze real time monitoring data and deformation of the potential disaster sites. Based on the given parameters and measured displacement, deformation trend is analyzed automatically by EMAIV. Finally, analyzed results (output data from EMAIV can be exported in required format) and warning information from alerting module will be released to the public through the internet based on the monitoring module of EMAIV.

Features

1. Visualizing, analysis, and near-real time reporting
2. Automatic quality assurance, alarms, and control features
3. Sensors integration
4. User involvement by contributing data/ regions to be focused
5. Interactive results from monitoring and analysis

Advantages

1. Highly sensitive and reliable analytical data
2. Low maintenance cost
3. Extremely stable, with few calibration checks
4. Real time sensor data visualization
5. Web based analytical platform with interactive visualization
6. Less analytical recalibration frequency

Your project

EMAIV can be integrated in your project. Contact us to know – how we could assist you to integrate in your environmental projects.