

ABSTRAK

Penelitian ini bertujuan untuk merancang sistem monitoring ketinggian permukaan air, sensor yang digunakan dibuat dari 9 buah kawat tembaga dengan panjang berbeda yang dihubungkan dengan mikrokontroler AT89S52. Dalam sistem monitoring ini komputer dihubungkan dengan jaringan *peer to peer*, sehingga seluruh komputer yang terhubung dengan jaringan dapat melihat ketinggian permukaan air sungai pada satu titik tertentu. Program aplikasi yang dibuat menggunakan Visual Basic 6.0 dan basis data menggunakan MS.Access 2003.

Hasil penelitian ketinggian permukaan air sungai, petugas pintu air dapat menerima informasi ketinggian permukaan air secara *realtime* pada tiap-tiap pintu air, dapat melihat pergerakan tinggi permukaan air secara *realtime* di setiap gardu yang diinginkan, dapat melihat pergerakan data ketinggian permukaan air yang telah terjadi dari beberapa hari yang lalu dan dapat mengantisipasi mengenai kemungkinan bencana banjir yang akan terjadi.

Kata kunci : Sistem monitoring ketinggian permukaan air sungai,

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ABSTRACT

Early warning of system consists of the detection process of rainfall and water surface level at points which decided. Records of rainfall can be obtained from BMG and records of water level obtained through continuous measurements. Today, to monitor the water level at some point still use the bar lines in each river. Therefore, an alternative way is to create a monitoring system for water surface level at the river. In its development, the authors use a monitoring system for water surface level is to monitor river water level automatically and continuously.

Monitoring can be described as an awareness of what we want to know. Monitoring is generally for a specific purpose, to check for a process or object, to evaluate a condition or progress toward goals / outcomes are expected. Monitoring will provide information about the status of a condition.

water surface level monitoring system is connected via a peer to peer network. With this monitoring system all of computer are conneted in this network can see the movement of water level in realtime in each point decided.

In the implementation , the floodgates officer can receive information in realtime about water surface level at each sluice, can see the movement of water level in realtime in each substation desired, can see the movement of the water surface level data that have been occur from a few days ago and can anticipate the possibility of catastrophic flooding will occurred.

Key words : Early warning system of floods, water surface level monitoring system.