

***Web-Based Water Level Monitoring System with Intelligent Assistance Services
for Flood Early Detection***

Mochammad Rifki Ulil Albaab, ST., M.Tr.T. *As a PKM Supervisor Lecturer*

Rani Purbaningtyas, S.Kom., MT. *As a Thesis Supervisor*

Erlangga Lesmana Putra

D4 Program in Informatics Engineering (Sidoarjo Campus)

Department of Information Technology

ABSTRACT

Flood is one of the most frequent hydrometeorological disasters in Indonesia and causes various impacts on society. Existing flood early warning systems generally still rely on historical data and weather predictions, making them unable to provide real-time field condition information. This study aims to develop a web-based water level monitoring system integrated with the Internet of Things (IoT) to support real-time flood early detection. The received data are then displayed through an informative and interactive website equipped with intelligent assistance services based on Artificial Intelligence (AI) to help users obtain information related to flood conditions. The system development method used in this study is the Waterfall method. The results of the study indicate that the system is capable of displaying real-time water level data and assisting the delivery of flood information to the public more quickly and easily.

Keywords: *Flood, Internet of Things, Website, Artificial Intelligence.*