

## ABSTRACT

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*Often every rains, there will often be inundation that causes the congestion and will affect to accessibility the road users who pass through it. Flooding in urban areas can be caused by disruption of waterways, causing flooding on roads. In this research, a flood monitoring system in urban areas that can detect flooding on waterways and roads will be developed. The Methodology used in this system development is Waterfall method. This system consists of a water level sensor, a rain sensor, with a microcontroller and the communication module used are ESP32 module and GSM/GPRS module. As for monitoring and sending information using the website with HTML, CSS and javascript programming languages and web server using Node JS and also utilizing the API telegram. This system will detect floods in waterways and roads. Will be informed via website by displaying floods location on maps and will report information via SMS to the relevant department and also send information to users of telegram apps that are already registered in this system.*

*Keywords: flood, detection, monitoring*