

# **THE IMPLEMENTATION OF A WEB AND MOBILE-BASED GEOGRAPHIC INFORMATION SYSTEM (GIS) FOR NATURE TOURISM**

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## **ABSTRACT**

*In today's digital era, information technology plays a crucial role in various aspects of life, including tourism development. Temanggung Regency, located in Central Java Province, holds significant potential for tourism, particularly in nature-based destinations. However, the use of technology for disseminating tourism information remains limited, as most site managers rely solely on social media. As a result, many attractive tourist spots remain underpromoted and are less known to potential visitors. To address this issue, this study focuses on the design and implementation of a Geographic Information System (GIS) accessible via both web and mobile platforms to support tourism development in Temanggung. The system was developed using the prototyping method, allowing for iterative redesign based on user feedback. Black box testing results confirm that all features on both the web interface for administrators and the mobile application for tourists' function as intended. Therefore, the issues highlighted in this study have been effectively resolved through the developed system. This GIS-based application is expected to make a tangible contribution to the management of nature tourism information and play a role in boosting tourism development in Temanggung through efficient and effective use of information technology.*

**Keywords:** *Geographic Information System, Nature Tourism, Temanggung, Web, Mobile*