

**RANCANG BANGUN *WEBSITE* PENGELOLA WISATA PEMANDIAN
AIR PANAS DENGAN METODE *WATERFALL*** *Design and Development of
a Hot Spring Tourism Management Website Using the Waterfall Method*

Puji Hastuti, S.T., M.Eng. *as Academic Supervisor*

Septian Yoga Pamungkas

Study Program Informatics Engineering

Majoring of Information Technology

ABSTRACT

The Banyu Biru Hot Spring tourism site still faces problems in its ticketing and pavilion (pendopo) reservation management processes, which are carried out manually. This condition may lead to recording errors, delayed information, and difficulties in managing transaction data. This study aims to design and develop a web-based information system to support more efficient and modern tourism management using the Waterfall method and the Laravel framework. The system was developed to facilitate ticket purchasing, pavilion booking, digital payments, and integrated administrative data management. System testing was conducted using the Black Box Testing method with Equivalence Partitioning techniques and the System Usability Scale (SUS). The Black Box Testing results showed a success rate of 99.22% from 129 test cases, with one failed test case in the registration validation feature. The SUS testing produced an average score of 79.03, which is categorized as good and acceptable. Based on these results, the developed system functions properly and has a high level of usability, thereby helping to improve the operational effectiveness of Banyu Biru tourism management.

Key words: *Information System, Website, Laravel, Waterfall, Black Box Testing, System Usability Scale (SUS), Tourism, Banyu Biru Hot Springs.*

