

**APPLYING QR-CODE-BASED DIGITAL SIGNATURE ON  
WEB-BASED INFORMATION SYSTEM FOR RESIDENT'S  
ADMINISTRATION SERVICE  
(Case Study: Pati Kidul Village Office, Pati Regency)**

**MUHAMMAD DHANI SYAFRI**

*Informatics Department, Faculty Of Science and Technology*

*University of Technology Yogyakarta*

*North Ringroad St., Jombor, Sleman Yogyakarta*

*E-Mail: [dhani.syafri@gmail.com](mailto:dhani.syafri@gmail.com)*

**ABSTRACT**

*Digital signatures are a rising trend in the era of the COVID-19 pandemic as it is today. It is because digital signatures can be created anywhere and anytime without interacting directly, such as requesting a wet signature. Pati Kidul Village Office has already implemented population administration services with the information system of population administration service where the previous author has built the system. The system also produces a printed document of the residence administration letter, which has been submitted by the residents or the community to the village head Pati Kidul. The documents currently produced by the system still use ratifying documents procedure through residents coming to Pati Kidul village and asking for signatures directly to the leadership or authorized officers to ratify the documents. From this issue, the author wants to replace the wet-signature with a QR-Code-based digital signature instead of a wet signature on the residence administration document. Cryptographic methods will first disguise the information that will be embedded in the QR-Code. This study aims to build an information system for population administration service that implements digital signature based on QR-Code and can verify the legality or validity of documents.*

**Keywords:** *Information system, Residence administration letter document, Digital signature, QR-Code*