

Building a smart access control system integrating multi-factor security and instant notification channels on the NODE-RED platform.

Nguyen Thanh Tu

Abstract: This topic focuses on building an intelligent access control system, including multi-factor security and instant notification channels. The practical context requires this solution to ensure security in private or public areas. The objective of the topic is to design and deploy a NODE-RED application system to optimize the access control process while enhancing security levels through the use of various authentication factors such as RFID cards, passwords, and fingerprints. The research methodology includes both theoretical and experimental approaches. The expected result is a flexible, secure, and easily deployable system for organizations or communities. The application of this topic can bring many benefits, such as enhancing personal information security and access management performance.

Keywords: NODE-RED, access control, multi-factor security, instant notification channel, security system