DEVELOPMENT OF SECURITY SYSTEMS FOR IIOT DEVICES USING THE PROCESSING OF THE INFORMATION CARRIED BY THE LOCAL IP ADDRESSES

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Rezumat. *De la începuturile industriei IIoT 4.0, este imposibil să te referi la orice echipament modern fără a face referire la modul în care acesta gestionează datele. Cel mai comun răspuns va include conceptul de „transfer wireless de date", care sunt ulterior stocate în baze de date. Această lucrare încearcă să maximizeze informațiile provenite din comunicarea Wi-Fi, propunând modalități de implementare a mentenanței asistate pentru echipamentele industriale.*

Abstract. *Since the IIoT 4.0 industry began, it is impossible to refer to any modern piece of equipment without referencing how it handles data. The most common answer will include the concept of "wireless data transfer", which is later stored in databases. This paper tries to maximize the information that comes from Wi-Fi communication, proposing ways to implement assistive maintenance for industrial equipment.*

Keywords: Industry 4.0, Wi-Fi, maintenance, security

1. Introduction

The paper focuses on exploring new and more efficient ways of using the network connection for its data-fetching properties. To achieve and put into perspective the capabilities of this practice, the implementation consisted of several modules and concepts: automatic local IP fetching, cross-device communication, secure database, automatic attendance recognizer, smart IIoT security, and maintenance web application. Every module and its past iterations will be thoroughly documented in the next chapters, heavily focused on the efficiency, reliability, and security measures of the programming behind it.

The importance of cybersecurity

Even though data security seems to be irrelevant to this conversation and its scope, the paper's structure documents both theoretical and experimental projects, it is impossible to apply the method in a real-life environment without assuring it can provide security of data.

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