**Elevating Roller Gates**

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**Abstract** - In an era of rapid technological advancement, the integration of ubiquitous computing has paved the way for groundbreaking innovations across various domains. One such innovation is the Smart Roller Gate System, a transformational concept that imbues conventional roller gates with the intelligence to operate seamlessly and securely in the modern digital landscape. This symposium delves into the remarkable convergence of ubiquitous computing, IoT middleware services, and voice assistants, showcasing how these elements unite to convert traditional roller gates into sophisticated, remotely accessible Smart Roller Gates. Traditional roller gates lack the ability to adapt to the dynamic needs of the modern world. They are often operated manually or via cumbersome and non-intuitive methods. Security and remote access to roller gates are also areas of concern. The expo addresses these limitations by presenting a comprehensive solution through the integration of ESP32-powered computing, voice assistants, and middleware IoT services. The primary objective of this symposium is to explore and demonstrate the potential of Smart Roller Gate Systems in solving the aforementioned problems. Showcase the technical implementation of ESP32-powered Smart Roller Gate Systems, highlight the enhanced security and privacy features of these systems, analyze the impact on the user experience by integrating voice assistants, discuss future possibilities and applications in various contexts, investigate the global accessibility and remote management capabilities of these systems are the main aims. A prototyped PCB, currently in optimal working condition, will serve as the centerpiece for hands-on demonstrations and technical explanations throughout the expo, providing attendees with a tangible and practical understanding of Smart Roller Gate Systems. By combining theoretical discussions with real-world examples.

**Keywords:** ubiquitous computing, Internet of Things (IoT), IoT middleware services