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there has been a shift in recent years toward thinking about how to put this new technology to use . cutting-edge IoT know-how with the ability to monitor agricultural ecosystems and guarantee high-quality production is underway . this work initially analyses existing Internet-of-Things technologies used in Smart Sustainable Agriculture (SSA) to discover architectural components that might facilitate the development of SSA platforms . it proposes an Internet of Things (IoT) and artificial intelligence (AI) framework as a starting point for SSA .

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Artificial Intelligence and Internet of Things for Sustainable Farming and Smart Agriculture. This work initially analyses existing Internet-of-Things technologies used in Smart Sustainable Agriculture (SSA) to discover architectural components that might facilitate the development of SSA platforms. This paper examines the state of research and development in SSA, pays attention to the current form of information, and proposes an Internet of things (IoT) and artificial intelligence (AI) framework as a starting point for SSA.

Gemini - Artificial Intelligence (AI) and the Internet of Things (IoT) are transforming sustainable farming and agriculture. IoT sensors monitor agricultural ecosystems, while AI analyzes data to optimize crop yields and reduce environmental impact. However, challenges remain in deploying and managing IoT and AI devices, sharing data, and analyzing large data volumes. To address these challenges, researchers propose an IoT and AI framework for Smart Sustainable Agriculture (SSA), which includes architectural components such as data collection, processing, and analysis. This framework aims to facilitate the development of SSA platforms that can improve agricultural practices, enhance sustainability, and contribute to food security.

Gpt-4 The abstract discusses the integration of Artificial Intelligence (AI) and the Internet of Things (IoT) in the realm of farming, specifically focusing on their application in Smart Sustainable Agriculture (SSA). Historically, agriculture has been a cornerstone of human sustenance, evolving over millennia with the adoption of increasingly effective agricultural practices. In recent years, there has been a significant shift towards leveraging modern technologies such as AI and IoT to enhance agricultural productivity and sustainability.

The paper highlights the ongoing transformation brought about by advanced IoT technologies capable of monitoring agricultural ecosystems and ensuring high-quality crop production. However, the implementation of these technologies in agriculture comes with substantial challenges. These include the deployment and management of AI and IoT devices across the widely dispersed agricultural fields, data sharing and management, ensuring interoperability among diverse systems, and handling the large volumes of data generated.

To address these challenges, the paper reviews existing IoT technologies currently used in SSA. It aims to identify key architectural components that could support the development of effective SSA platforms. Furthermore, the paper assesses the current state of research and development in SSA, focusing on how information is presently utilized and managed.

In response to the identified challenges and gaps in current technologies, the paper proposes a new framework that integrates both IoT and AI. This proposed framework is intended to serve as a foundational structure for advancing SSA. By doing so, it seeks to streamline the integration of these technologies into agriculture, thereby enhancing the efficiency, sustainability, and productivity of farming practices.

Overall, the abstract underscores the potential of AI and IoT to revolutionize agriculture but also calls attention to the complexities involved in actualizing this potential. It sets the stage for a detailed exploration of how a synergistic integration of AI and IoT can be effectively achieved in the context of SSA.

Gpt-3 The integration of Artificial Intelligence (AI) and Internet of Things (IoT) technologies in farming and agriculture has been a growing trend, with a recent focus on leveraging these advancements for sustainable and smart agricultural practices. Agriculture, a fundamental source of sustenance for humanity over millennia, has seen significant benefits from advanced agricultural techniques. The emergence of IoT capabilities offers the potential to monitor agricultural ecosystems and enhance production quality. However, the implementation of Smart Sustainable Agriculture faces challenges such as the complex deployment and management of IoT and AI devices, data sharing and governance, interoperability issues, and the handling of vast amounts of data. This study delves into the current landscape of IoT technologies in Smart Sustainable Agriculture, identifying key architectural components that could support the development of sustainable agriculture platforms. By examining the existing research and development in this field, the paper proposes an IoT and AI framework as a foundational approach for Smart Sustainable Agriculture. Overall, the research highlights the potential of AI and IoT in revolutionizing farming practices towards sustainability and efficiency, while acknowledging the need to address various technical and operational challenges for widespread adoption and success in the agricultural sector.