

Title: Artificial Intelligence of Things (AIoT) Technologies and Applications

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Abstract: AIoT (Artificial Intelligence of Things) is a relatively new term that has recently become a hot topic that combines two of the hottest acronyms, AI (Artificial Intelligence) and IoT (Internet of Things). IoT consists of interconnected things with built-in sensors and has the potential to generate or collect a vast amount of data. Individual IoT systems can be integrated into a large-scale system for various modern applications. With that comes a lot of collected or real-time data, an intelligent and efficient data processing is essential to make effective use of the information generated from these data. The data can be analyzed and utilized with AI for problem-solving or decision-making. Without AI, IoT would have limited value. AI can multiply the value of IoT; conversely, IoT can promote the learning and intelligence of AI. However, there are many challenges while deploying AIoT in practice. For instance, machine learning is one of the key technologies to be utilized in AIoT systems. Besides, there are many other issues such as complexity, efficiency, scalability, accuracy, and robustness related to the increasing modern AIoT systems and applications.

Keywords: AIoT (Artificial Intelligence of Things) Internet of Things (IoT) Artificial Intelligence (AI) Machine learning Intelligent data processing Real-time data analytics Large-scale IoT systems

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