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## **Applications of IoT and Cloud Platform Incorporating AI and VR Technologies**

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### **ABSTRACT (NO MORE THAN 500 WORDS:)**

IoT (Internet of Things) means things and things or people and things are connected with each other by advanced technology. They can communicate with each other in a new way. IoT has three layers of system architecture: perception, network and application. The perception and network layers depend on hardware technologies, such as RFID, ZigBee, Infrared technologies, wireless sensor network (WSN) technology, and communications network. In the application layer, the cloud platform and cloud computing are the key technologies, as well as the user interface for visual presentation to customers. Furthermore, the cloud platform is the core of IoT applications based on Big Data.

IoT has a lot of applications in our life, such as intelligent transportation, intelligent logistics, public safety, environment protection, individual health and so on. Nowadays, IoT has more and more applications in intelligent transportation, intelligent fire fighting, intelligent manufacturing, and online experiencing, especially by integrating artificial intelligence (AI) and virtual reality (VR) technologies. In an intelligent transportation system incorporating AI technologies, some novel functions are available, such as face recognition, behavior analysis, and driver assistant by monitoring and automatic alarming system.

IoT technologies incorporating AI and VR have broad application prospects in textiles and clothing industry, such as intelligent garment manufacturing, virtual fitting platform for wearing experience during design stage, and Big Data platform for extending the applications of smart e-textile electronics and wearables.