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(57) Abstract :

The system in the present disclosure pertains to a novel system and method designed to intelligently categorize and identify Internet of Things (IoT) devices within a network (104) environment. This innovative system addresses this issue by employing advanced algorithms and data analysis techniques to efficiently categorize and identify various IoT device (102) connected to a network. The system begins by collecting data from the network, encompassing device characteristics, communication patterns, and contextual information. Machine learning algorithms are applied to this data to recognize patterns and establish categories of IoT devices (102). The algorithms consider diverse features such as device type, usage patterns, traffic behavior, and network (104) interactions. Furthermore, the system leverages real-time monitoring and adaptive learning capabilities to continuously update the device categorizations as new data flows into the network (104). This ensures that the system remains current and accurate in categorizing the evolving landscape of IoT devices.

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