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(57) Abstract :

Embodiments of the present disclosure relates to a system (100) and method (300) for establishing a secure communication channel among IoT devices. In an aspect, the present disclosure discloses a system (102) for establishing a secure communication channel by incorporating network security, cryptographic algorithms, secure key management, secure protocols, and device initialization and bootstrapping processes in a network of IoT devices. The system (102) comprises a processor (202) coupled to a memory (204). The memory (204) stores processor-executable instructions. The processor (202) is configured to enable a secure transmission of data among the IoT devices. Further, the processor (202) is configured to encrypt the data transmitted among the IoT devices. Next, the processor (202) is configured to establish a shared private key among the IoT devices. In the end, the processor (202) is configured to verify the data being shared among the IoT devices based on the private key.

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