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(57) Abstract :
 The present disclosure relates generally to field of secure communication technology service platforms for Internet of Things (IoT) devices. More specifically the present invention relates to a secure communication technology service system for internet of things (IoT) devices. The system (100) includes a communication interface (102), a trust management device (104), a policy management device (106), a database (108) and a gateway (110). The trust management device (104) is embedded with machine learning module that uses machine learning algorithms that manages the trustworthiness of the IoT devices and systems, using a plurality of trust metrics. Further the present invention relates to a method for providing secure communication between heterogeneous IoT systems. Advantageously, the present invention relates to a Cross-System Secure Communication Technology Service Platform that provides secure and efficient communication among heterogeneous IoT systems, using end-to-end encryption, authentication, and authorization, and managing the trustworthiness of IoT devices and systems.

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