CLAIMS

1. A smart security device comprising:

    a housing, and

    electronics provided in the housing, the electronics comprising

        a tag uniquely associated with the smart security device and configured to automatically and periodically emit a first signal, the first signal being a Bluetooth signal configured to be sent and received via a Bluetooth low energy wireless personal area network;

        a NB-IoT module configured to send and receive signals via a NB-IoT network;

    a cable having a free end and a secured end, the secured end being secured to the housing and in electrical connection with the electronics; and

    a lock assembly at least partially provided in the housing, the lock assembly comprising:

        a body comprising a cable passage configured for passing the free end of the cable therethrough and for immobilizing the cable therein,

        a lever having a free end and a pivoting end, the pivoting end pivotably connected to the body, the lever having a resilient plate provided thereon, the resilient plate configured to exert a force on a cable immobilizer against the cable to immobilize the cable in the cable passage when a side of the lever facing the body is brought into contact with a side of the body facing the lever while the cable is in the cable passage, and

        a fastener configured to secure the lever to the body when the cable is immobilized in the cable passage.

2. The smart security device of claim 1, wherein the electronics further comprises a Global Positioning System (GPS) module for location tracking of the smart security device via GPS.

3. The smart security device of claim 1, wherein the smart security device further comprises a remotely actuated lock configured to be remotely activated to prevent physical unlocking of the smart security device and remotely deactivated to allow physical unlocking of the smart security device using the signals received by the NB-IoT module.

4. The smart security device of claim 3, wherein the fastener comprises a lock passage provided in the body and a lock pin provided on the lever, the lock passage configured to receive the lock pin therein, and wherein the remotely actuated lock comprises a securing pin configured to pass through the lever into a securing hole provided in the lock pin in an activated position, the securing pin configured to be withdrawn from the securing hole in a deactivated position.

5. The smart security device of claim 4, wherein the remotely actuated lock further comprises a motorized actuator configured to move the securing pin between the activated position and the deactivated position, wherein operation of the motorized actuator is configured to be triggered by a signal received by the NB-IoT module.

6. The smart security device of claim 3, wherein the remotely actuated lock is provided within the housing and externally invisible.

7. A smart security system comprising:

the smart security device of claim 1, wherein the security device further comprises:

a cable having a free end and a secured end, the secured end being secured to the housing and in electrical connection with the electronics;

a lock assembly at least partially provided in the housing, the lock assembly comprising:

a body comprising a cable passage configured for passing the free end of the cable therethrough and for immobilizing the cable therein,

a lever having a free end and a pivoting end, the pivoting end pivotably connected to the body, the lever having a resilient plate provided thereon, the resilient plate configured to exert a force on a cable immobilizer against the cable to immobilize the cable in the cable passage when a side of the lever facing the body is brought into contact with a side of the body facing the lever while the cable is in the cable passage, and

a fastener configured to secure the lever to the body when the cable is immobilized in the cable passage; and

a remotely actuated lock configured to be remotely activated to prevent physical unlocking of the smart security device and remotely deactivated

to allow physical unlocking of the smart security device using the signals received by the NB-IoT module;

a receiving transmitter having a Bluetooth signal reception functionality, the receiving transmitter configured to automatically receive the first signal from the tag when the receiving transmitter is within a broadcast range of the tag without requiring pairing of the receiving transmitter and the tag, the receiving transmitter further configured to transmit a second signal;

a data system configured to be remotely accessible to the receiving transmitter and to receive the second signal transmitted from the receiving transmitter, the data system comprising at least one server for executing tasks and a data store connected to the at least one server for data storage, the second signal being transmitted via a network to which the receiving transmitter is connected, the network being at least one of a cellular mobile network and a wireless network, the data system further configured to remotely communicate with the NB-IoT module via the NB-IoT network; and

an application configured to be installed in the receiving transmitter, the application configured to allow the receiving transmitter to automatically receive the first signal and to initiate transmission of the second signal from the receiving transmitter to the data system.

8. The smart security system of claim 7, wherein the first signal comprises information associated with the smart security device, and wherein the second signal comprises information associated with the receiving transmitter and at least part of the information associated with the smart security device.

9. The smart security system of claim 8, wherein the information associated with the receiving transmitter includes ownership and location information of the receiving transmitter, and wherein the information associated with the smart security device includes information identifying the item to which the smart security device is attached and status of the smart security device.

10. The smart security system of claim 9, wherein status of the smart security device comprises at least one of: whether the smart security device is electronically locked and whether the smart security device is physically locked.

11. The smart security system of claim 7, comprising a plurality of the receiving transmitter provided at various locations, and wherein the second signal transmitted from each of the plurality of the receiving transmitter provides a record of movement of the item to which the smart security device is attached and a record of status of the smart security device, the movement being from an authorized sender to an authorized recipient through the various locations.

12. The smart security system of claim 11, wherein the second signal from one of the plurality of the receiving transmitter that is located at a location of the authorized recipient includes an electronic proof of delivery when the authorized recipient receives the item.

13. The smart security system of claim 7, wherein the application is configured to initiate transmission of the second signal from the receiving transmitter to the data system via at least one of: automatic transmission and user-activated transmission.

14. The smart security system of claim 13, wherein the application is configured to allow a user to select one of: automatic transmission and user-activated transmission to initiate transmission of the second signal from the receiving transmitter to the data system.

15. The smart security system of claim 7, comprising a plurality of the smart security device, the receiving transmitter being provided at a location where a number of items are stored, each of the number of items having one of the plurality of the smart security device attached thereto that is registered with the data system to indicate that the number of items are expected to be at the location, wherein the application installed in the receiving transmitter is configured to match received signals from each of the smart security devices at the location with expected presence of the registered smart security devices and to transmit an alert to the data system if a signal expected to be received from any one of the registered smart security devices is not received by the receiving transmitter within a specified time frame.

16. The smart security system of claim 7 wherein the data system is configured to automatically activate or deactivate the remotely actuated lock when a predetermined condition is met.

17. The smart security system of claim 7, wherein the NB-IoT module is configured to periodically transmit a signal to the data system.