

Claims

1. System for supervising a person in an area, the system comprising a mobile base (100), such as for example a wristband, attached to the person, the mobile base (100) comprising a first radio frequency tag (11) prepared for radio frequency triangulation or positioning for deciding a position of the mobile base (100) and for communicating health, safety and environment (HSE) related components, the system comprising a controller (400) in communication with the mobile base (100)
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- 10 **characterized in that**
- the mobile base also comprises a proximity based communication tag (13), activation of the mobile base (100) is to be decided by a proximity based communication reader or scanner (200) recognizing the proximity based communication tag (13) on the mobile base (100), and communicating this to the controller (400), the controller being prepared to activate the monitoring system.
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2. System according to claim 1, wherein the system comprises lock control, a computer being prepared to unlock a lock (500), a fixed position of the lock (500) being prearranged in the computer; and
- 20 proximity and identity verification of the mobile base (100) to the lock (500) prepared to be decided with a proximity based communication reader in communication with and positioned proximate to the lock (500); the reader being able to detect a proximity based communication tag (13) on the mobile base being proximate to the reader and communicating this to the computer, the computer being prepared to
- 25 unlock the lock on this condition.
3. System according to claim 1 or 2, wherein the proximity based communication tag (13) and reader (200) are NFC components.
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4. System according to one of claims 1 to 3, wherein the proximity based communication reader (200) is prepared to read the proximity based tag (13) at a distance smaller than 20cm.
5. System according to one of claims 1 to 4, wherein the first radio frequency tag is a Bluetooth component.
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6. System according to one of claims 1 to 4, wherein the first radio frequency tag is a Bluetooth Low Energy (BLE) component.

5 7. System according to one of claims 1 to 6, wherein the mobile base (100) comprises a second radio frequency tag for activating the first radio frequency tag, and where the second tag is activated by entering a corresponding frequency field (310).

10 8. System according to claim 7, wherein the second radio frequency tag is a low frequency (LF) tag, or preferably a very low frequency (VLF) tag.

9. System as in one of claims 1 to 8, further characterized in the system being prepared for receiving and collecting information from sensors (22, 23) related to health, safety, and/or environment (HSE), the sensors being integrated with the
15 mobile base (100) and detecting e.g. heart rate, temperature, acceleration or air toxicity.

10. System as in one of claims 1 to 9, wherein the system comprises means for transmitting information from a server to a radio frequency receiver to e.g. a
20 vibration motor (24) or a display (21) integrated with the mobile base (100) intended to provide the person being supervised with information.

11. Method for supervising a person using the system as in claim 1 to 10,
characterized in that the method comprises the steps of:
25 - a proximity based communication reader (200) registering the entrance to an area of a person wearing a mobile base (100) when the person presents the mobile base with a proximity based communication tag (13) to the proximity based communication reader (200);
- the reader (200) transmitting information regarding the entrance from the
30 reader to a controller (400);
- the controller (400) initiating supervision of the person wearing the mobile base (100) by radio frequency;
- the controller (400) supervising the person wearing the mobile base (100) by radio frequency;
35 - the user presenting the mobile base (100) with the proximity based communication tag (13) to the proximity based communication reader (200); and

- the controller (400) terminating supervision of the person wearing the mobile base (100)

12. Method as in claim 11 also including the step of communicating additional
5 information from HSE-related sensors (22, 23) to and from the mobile base (100).

13. Method as in claim 11 or 12 also including the steps of using a second radio frequency tag to activate the first frequency tag during supervision period inside a designated area, after the proximity based communication activation has
10 occurred, wherein the second tag is activated upon entrance to a frequency field (310) operating at a frequency corresponding to the second tag.

14. A system for activated communication between an object and a reader, comprising a first radio unit (11) attached to the object, the first radio
15 unit being configured for communicating with the reader,
characterized in that the system further comprises a second radio unit (12) attached to the object,
wherein the second radio (12) unit is adapted to be activated by a RF field (310),
20 wherein the second radio unit (12) when activated by the RF field (310) activates the first radio unit (11).

15. The system according to claim 14, wherein the object also comprises a proximity based communication tag, such as an NFC tag.
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16. The system according to claim 14 or 15, wherein the object is a wristband to be worn by a person.

17. The system according to claim 14 or 15, wherein the system is used to
30 activate a first radio unit in a system according to claim 1.

18. The system according to one of claims 14 to 17, wherein the first radio unit (11) and the second radio unit (12) operates at different frequencies.

35 19. The system according to claim 18, wherein the first radio unit (11) is a high frequency (HF) unit and the second radio unit (12) is a low frequency (LF) unit, preferably a very low frequency (VLF) unit.

20. System according to one of claims 14 to 19, wherein the radio frequency fields (310) for activating the second radio unit (11) each has a limited range in a normal situation, for covering an entrance such as a door, and where the fields are
5 configured to be enlarged for special situations such as emergency situations, hence covering an entire room each.

21. Method for activated communication between an object and a reader, using the system as in claims 14 to 20,
10 **characterized in** that the method comprises the steps of:
- the second radio frequency tag being activated when the object with the tag enters a radio frequency field (310).
- the second radio frequency tag activating the first radio frequency tag
- the first radio frequency tag being prepared for communication with a reader
15 when activated.

22. Method according to claim 21, wherein the method is a step within the method according to claim 11, taking place after the controller has initiated supervision of the person.
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