Claims:

1. An interactive system for monitoring and reporting one or more building facilities' life cycle, maintenance, and metrics audit, comprising:

one or more sensing modules for collecting operation data of the one or more building facilities;

one or more processors configured to:

receive and store the collected operation data;

simulate a building information model (BIM) of the building using the collected operation data;

construct a three-dimensional model of the building using the collected operation data;

generate the one or more building facilities' life cycle, maintenance, and metrics audit reports using the collected operation data;

compute a present carbon dioxide emission of the building; and

predict a future carbon dioxide emission of the building;

one or more communication modules, each electrically connected to one of the processors, for communicating with a control center; wherein

the control center comprising one or more networked user interfaces, for accessing and retrieving data from the processors and one or more tracking and data systems for automatic, intelligent, and remote report re-test (RCx).

2. The interactive system of claim 1, wherein the sensing modules further comprise:

one or more three-dimensional space measuring sensors installed inside and outside the building for collecting building geographic construction data.

3. The interactive system of claim 1, wherein the sensing modules further comprise one or more load sensors, each installed on a suspension means in at least one of the buildings' lifts for collecting lift operation data comprising cable tension profile and loading of the buildings' lift.

4. The interactive system of claim 1, wherein the sensing modules further comprise one or more noise sensors, each installed on a suspension means in at least one of the buildings' lifts for collecting noise data for determination of the load distribution evenness of the cables in the suspension means.

5. The interactive system of claim 1, wherein the sensing modules further comprise one or more elevator sensors, each installed on a suspension means in at least one of the buildings' lifts for collecting the operation data of the elevator, interacting with one or more users and combining media using Virtual Reality (VR), Augmented Reality (AR), Mixed Reality (MR), Substitutional Reality (SR) or Cinematic Reality (CR) technologies to enhance the current reality vision and information.

6. The interactive system of claim 1, wherein the sensing modules comprise:

one or more fire or smoke detectors, each installed in one of the one or more building lift shafts, for detecting presence of fire and transmitting a fire detection signal to the load control unit when the presence of fire is detected;

a fire alarm system comprising:

one or more ventilation ports located above the lift shafts, wherein the ventilation ports are caused to be opened when there is the presence of fire is detected; and

wherein the fire alarm system operation comprises: moving the lift cars to a safety floor when the fire detection signal is received; and operating one or more of water pumps, drainage pumps and sewage pumps, fire pumps under the lift shafts.

7. The interactive system of claim 1, wherein the sensing modules further comprise:

one or more fire sprinkler hose retractor buttons for collecting fire sprinkler hose retractor data and transmitting the data to the control center for integrating a fire extinguishing tracking and data system.

8. The interactive system of claim 1, further compring:

an energy measuring device, in communication with the sensing modules, for measuring energy consumption of building equipment;

wherein the processor is configured to

receive enery consumption data of the building equipment from the energy measuring device; and

simulate a energy consumption model of the building for developing a building equipment operation optimization plan.

9. The interactive system of claim 1, the sensing modules comprise:

one or more air index sensors, each installed in one of the one or more building lift shafts for collecting air index data; and

one or more microbial sensors for collecting and monitoring disease spread data of the elevator shaft and transmitting the disease spread data to control center for integrating a disease spread tracking and data system.

10. The interactive system of claim 1, further comprise:

one or more electrical transformers, each installed in an electrical power circuit of one of the building facilities for measuring electrical and/or voltage of the building facility's electricity consumption; and

one or more electricity storage stations for storing electrical energy regenerated in one of the building facilities.

11. The interactive system of claim 10, further comprising

one or more photovoltaic solar electricity generation units;

wherein the photovoltaic solar electricity generation units comprise one or more building windows and building glass wall coated with transparent photovoltaic material and electrically connected to the electricity storage station;

wherein excess electricity generated by the one or more photovoltaic solar electricity generation units is redistributed into an electricity distribution network; and

wherein the excess electricity and the present carbon dioxide emission are used in carbon trading computation.

12. The interactive system of claim 10, further comprising one or more solar thermal-energy exchange units;

wherein the solar thermal-energy exchange units comprising one or more building windows coated with transparent thermal absorbing material and connected to a thermal-electricity conversion layer;

wherein the thermal-electricity conversion layer is a piezoelectric coating on the coated building window electrically connected to the electricity storage station; and

wherein excess electricity generated by the one or more solar thermal-energy

exchange units is redistributed into an electricity distribution network; and

wherein the excess electricity and the present carbon dioxide emission are used in carbon trading computation.

13. The interactive system of claim 11, further comprising a ventilation system comprising one or more ventilation ports located above at least one of the building lift shafts;

wherein at least one of the ventilation ports is installed with one or more of the coated building windows; and

wherein the coated building windows installed at the ventilation ports are caused to open for heat dissipation.

14. The interactive system of claim 12, further comprising a ventilation system comprising one or more ventilation ports located above at least one of the building lift shafts;

wherein at least one of the ventilation ports is installed with one or more of the coated building windows; and

wherein the coated building windows installed at the ventilation ports are closed for energy generation from the lift shafts heat under normal condition and are caused to open for heat dissipation.

15. The interactive system of claim 1, wherein the sensing modules further comprise:

one or more garbage and kitchen energy storage conversion sensors for collecting and monitoring waste and kitchen energy storage data of the building and transmitting the data to the control center for integrating a garbage and kitchen waste energy storage tracking and data system;

one or more regenerative energy sensors for collecting and monitoring regenerative energy data of the buidling, and transmitting the data to the control center for integrating a regenerative energy storage tracking and data system;

one or more endothermic pressure layer conversion sensors for collecting and monitoring the endothermic pressure layer energy storage data of the building, and transmitting the data to the control center for integrating an endothermic pressure layer energy storage tracking and data system;

one or more solar thermal absorption coating conversion sensors for collecting and monitoring the solar thermal absorption coating energy storage data of the building and transmitting the data to the control center for integrating a solar thermal absorption coating energy storage tracking and data system;

one or more electroplating film thermal energy absorption coating conversion sensors for collecting and monitoring electroplating film thermal energy absorption coating energy storage data of the building and transmitting the data to the control center for integrating a electroplating film thermal energy coating energy storage tracking and data system;

one or more anodized film thermal energy absorption coating conversion sensor for collecting and monitoring anodized film thermal energy absorption coating energy storage data of the building and transmitting the data to the control center for integrating a anodized film energy storage tracking and data system;

one or more vacuum deposition thermal energy absorption coating conversion sensors for collecting and monitoring vacuum deposition thermal energy absorption coating energy storage data of the building and transmitting the data to the control center for integrating a vacuum deposition energy storage tracking and data system; and/or

one or more solar selective absorption coating sensor for collecting and monitoring solar energy selective absorption coating energy storage data of the building and transmitting data to the control center for integrating a solar selective absorption coating energy storage tracking and data system.

16. The interactive system of claim 1, further comprising

one or more cameras, installed in a lift shaft or a lift car in the lift shaft of the elevator, for capturing videos or images of the lift car or lift shaft;

an elevator controller for controlling the lift car; and

an unintended car movement protection (UCMP) unit comprising a mechanical rope gripper;

wherein the one or more processors are further configured to

receive the captured videos or images of the lift car or lift shaft from the camera;

process the received videos or images and detect, using artificial intelligence, abnormal incidents happening inside the lift car or lift shaft; and

transmit an emergency call to the control center and an emergency instruction signal to the elevator controller or the UCMP unit when one or more abnormal incident is detected.

17. The interactive system of claim 16, wherein

the abnormal incidents include: abnormal human body movements or gestures which are suspected to be caused by criminal actions or fatal accidents; unintended opening or close of lift door; over-speeding of the movement of the lift car; unintended movement of the lift car; breaking of

cables in suspension means connected to the lift car; and existence of one or more obstacles in movement path of the lift car; and

the emergency instruction signal sent to the elevator controller includes any one or a combination of: stopping the lift car immediately with the UCMP unit; moving the lift car to a safety floor; and activating an alarm in the lift car.

18. The interactive system of claim 1, wherein the BIM provides a representation of physical and functional characteristics of the building to facilitate decision making on performance and operational improvements.

19. The interactive system of claim 1, further comprising a central device for accessing a cloud server by means of SSL, or HTML convergence, a centralized access platform (Masslink), and a connected network user interface to form an intelligent system.

20. A method for monitoring and reporting one or more building facilities' life cycle, maintenance, and metrics audit, comprising:

collecting, with one or more sensing modules, operation data of the one or more building facilities;

receiving and storing, with one or more processors, the collected operation data;

simulating, with the processers, a building information model (BIM) of the building and construct a three-dimensional model of the building using the collected operation data;

generating, with the processers, the one or more building facilities' life cycle, maintenance, and metrics audit reports using the collected operation data;

computing, with the processors, a present carbon dioxide emission of the building;

predicting, with the processors, a future carbon dioxide emission of the building;

communicating, with one or more communication modules respectively connected to one of the processors, for communicating with the processors and a control center;

estimating the heat tansfer between the building and external evinronments by calculating the overall thermal transfer value (OTTV) of surfaces of one or more exterior building walls and roofs including glass lift shafts;

measuring, with one or more electrical transformers, electrical and/or voltage of the building facility's electricity consumption;

storing, with one or more electricity storage stations, electrical energy regenerated in one of the building facilities;

redistributing the regenereated electrical enerfy into an electricity distribution network;

converting, with one or more photovoltaic solar electricity generation units, solar energy into electrical energy, wherein the photovoltaic solar electricity generation units comprise one or more building windows and building glass wall coated with transparent photovoltaic material and electrically connected to the electricity storage station;

converting, with one or more solar thermal-energy exchange units, solar energy into electrical energy, wherein solar thermal-energy exchange units comprise one or more building windows coated with transparent thermal absorbing material and connected to a thermal-electricity conversion layer; wherein the thermal-electricity conversion layer is a piezoelectric coating on the coated building window electrically connected to the electricity storage station;

collecting lift operation data comprising cable tension profile and loading of at least one of the buildings' lifts with one or more load sensors; wherein each of the load sensors is installed on a suspension means in one of the buildings' lifts;

collecting noise data for determination of the load distribution evenness of the cables of at least one of the buildings' lifts with one or more noise sensors; wherein each of the noise sensors is installed on a suspension means in one of the buildings' lifts;

capturing the lift movements and passenger flow with one or more cameras; and

simulating the lift cars' flights for arranging lift zoning in which the building floors are divided into a plurality of clusters of stops each to be served by one or more of the lift cars.