A golflinkS operation-control system is comprised of at least one sensor placed at a required position along a cart route on a golf course in which an information on position is individually set and which can transmit the information on position within a given area, at least one cart which can patrol the cart route and which is provided with a receiver of the information on position and a transmitter of the sensor identification information received and a cart identification information set individually, and a control house which is provided with a receiver of the information on position and the cart identification information to detect a present position of the particular cart which is patrolling the golf course.

The control house is characterized by comprising an instruction unit for instructing driving which can judge whether or not the particular cart and another cart are situated within a given distance on the basis of a cart identification information transmitted from another cart which is patrolling the cart route to obtain judgement results, and can perform instructions for permission or prohibition on driving to the particular cart on the basis of the judgement results. The particular cart is characterized by comprising an instruction unit for instructing driving which can judge, on the basis of a cart identification information transmitted from another cart which is patrolling the cart route and situated at least ahead of the particular cart, whether or not another cart is situated within a given distance from the particular cart to obtain judgement results, and can perform instructions for permission or prohibition on driving to the particular cart on the basis of the judgement results.
FIG. 8

DH1  DH2  DH3  DH4  DH5  DH6
SYNC  CONTROL HOUSE ID  PARTNER CODE  CONTROL DATA  FOG MODE FLAG  ERROR DETECTION

FIXED

DATA ON PERMISSION OR PROHIBITION ON DRIVING
FIG. 11

HAS THE OPERATION FOR CHANGING TO "FOG MODE" BEEN DETECTED?

(A001)

YES

PROCESS FOR CHANGING TO "FOG MODE" (DISPLAY, VOICE)

(A002)

CHANGING TO "FOG MODE" IS TRANSMITTED TO A CART

(A003)

NO

HAS THE CART TRANSMISSION DATA BEEN RECEIVED?

(A004)

YES

COMPARISON OF SENSOR ID

(A005)

250 YARDS OR LESS

THE DISTANCE BETWEEN THE PARTICULAR CART AND A CART AHEAD OF THE PARTICULAR CART?

(A006)

TRANSMISSION OF DATA ON PERMISSION OR PROHIBITION ON DRIVING (PERMISSION)

(A007)

NO

HAS THE OPERATION FOR RELEASING "FOG MODE" BEEN DETECTED?

(A009)

YES

PROCESS FOR RELEASING "FOG MODE" (DISPLAY, VOICE)

(A010)

RELEASING OF "FOG MODE" IS TRANSMITTED TO A CART

(A011)

TRANSMISSION OF DATA ON PERMISSION OR PROHIBITION ON DRIVING (PROHIBITION)

(A008)

250 YARDS OR ABOVE
HAS CHANGING TO "FOG MODE" BEEN RECEIVED?
(A101)

YES

PROCESS FOR CHANGING TO "FOG MODE" (DISPLAY, VOICE)
(A102)

HAS DATA ON PERMISSION OR PROHIBITION ON DRIVING BEEN RECEIVED?
(A103)

YES

PROHIBITION

WHAT IS THE CONTENTS OF DATA ON PERMISSION OR PROHIBITION ON DRIVING?
(A104)

PROHIBITION ON DRIVING IS INSTRUCTED (DISPLAY, VOICE)
(A105)

NO

HAS RELEASING OF "FOG MODE" BEEN RECEIVED?
(A107)

YES

PROCESS FOR RELEASING "FOG MODE" (DISPLAY, VOICE)
(A108)

PERMISSION ON DRIVING IS INSTRUCTED (DISPLAY, VOICE)
(A106)
HAS AN OPERATION FOR CHANGING TO "FOG MODE" BEEN DETECTED

(S001)

HAS A CONTROL SIGNAL FOR CHANGING TO "FOG MODE" FROM THE CONTROL HOUSE BEEN RECEIVED?

(S003)

PROCESS FOR CHANGING TO "FOG MODE" (DISPLAY, VOICE)

(S002)

HAS CART TRANSMISSION DATA OF ANOTHER CART BEEN RECEIVED?

(S004)

IS ANOTHER CART AHEAD OF THE PARTICULAR CART?

(S006)

250 YARDS OR LESS BETWEEN THE PARTICULAR CART AND ANOTHER CART?

(S007)

DISAPPROVAL OF DRIVING IS INSTRUCTED (DISPLAY, VOICE)

(S008)

HAS AN OPERATION FOR CHANGING TO "FOG MODE" BEEN DETECTED?

(S010)

HAS A CONTROL SIGNAL FOR RELEASING "FOG MODE" BEEN TRANSMITTED FROM THE CONTROL HOUSE?

(S012)

PROCESS FOR CHANGING TO "FOG MODE" (DISPLAY, VOICE)

(S013)
OPERATION-CONTROL SYSTEM FOR GOLFLINKS

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] This invention relates to an operation-control system for golflinks, and particularly, to a system for instructing driving of a ball, for example when the fog occurs.

[0003] 2. Description of the Prior Art

[0004] In recent years, a golflinks has been known in which a golf player plays self-play while operating a golf cart by himself.

[0005] The expression “self-play” used herein is employed to mean “play in which a golf player operates a golf cart by himself while he is playing golf.”

[0006] However, in such self-play, the player cannot grasp congestion in the course and delay of play until the player comes back to a clubhouse after finish of play when the player once starts from the start tee. Therefore, there is a golf links, for example, where a course guide is stationed every several holes in order to accelerate the play. However, this type of golflinks has a problem that excessive personnel costs are required.

[0007] Then, as described, for example, in the specifications of Japanese Patent Application No.9-31855 and Japanese Patent Application No.10-28504 which were filed by the present Applicant himself, a system has been known in which a transmitt-receive means for a cart identification signal such as a cart ID and so forth is installed in the cart and a sensor is placed to a cart route which is a route of the cart, for example, in the vicinity of teeing ground, fairway, green and a cart identification signal which is detected by the sensor is controlled by a control house.

[0008] The system described in the above-mentioned specifications controls the present standing position of each cart on the basis of the cart identification signal and identification signal of the sensor and controls, for example, informations on time which is detected by means of the sensor and displays them on the required display unit, thereby can grasp the operation conditions of the carts situated on the course. However, the play in which the player drives a ball at a position, so-called on blind hole around where a forward visibility is not good is left to player’s self-judgement due to an operation of self-play. Therefore, it has been proposed as shown, for example in the specification of Japanese Patent Application No.9-31855 filed by the Applicant himself that a special sensor is placed in a given section on a blind hole, that is to say, a section where if the player drives a ball rashly, the ball is probably driven in a preceding player in order to make the player to judge prohibition on driving on the basis of the sensor.

[0009] Thereby, the player can judge whether or not he can drive a ball in a blind hole.

[0010] By the way, a golflinks is constructed, for example, on highlands. And, further, there is a case where the play starts on early morning when the fog rises due to a wide temperature difference. In this case, a forward visibility in the whole area of the golflinks or a part thereof is hard similarly to the blind hole as previously described. Therefore, if the player goes on playing under foggy conditions, he has to pay his particular attention to his front. In case where it can be expected the fog clears off immediately, it may be taken into consideration to discontinue the play. However, if a state that the fog does not disperse continues, there occurs eventually a delay in the play.

[0011] Therefore, a method has been known for detecting the distance between the carts by grasping the positions of the carts which are present on the course by making use of, for example, GPS (Global Positioning System). According to such method, a judgement is made on whether or not driving a ball is now permission on the basis of the difference between the carts even if the player could not view his front exactly.

[0012] It is, however, required to register previously a layout of a golf course as data on position in order to place the GPS in a golflinks. And, a judgement of the positions of the carts now present is made on the basis of the data on the positions registered and the deference between the carts is obtained on the basis of the positions of the carts.

[0013] Accordingly, it is required to register correctly the aforementioned data on the positions in order to obtain the difference between the carts. Therefore, an innovation of the GPS or a change in or modification to the layout requires a plenty of labor and time.

[0014] As described above, it is difficult to give the player easily and properly instructions for prohibition on driving when the fog occurs in the golflinks.

SUMMARY OF THE INVENTION

[0015] According to a first aspect of this invention, there is provided a golflinks operation-control system which is provided with at least one sensor placed at a required position along a cart route on a golf course in which an information on position is individually set and which can transmit said information on position within a given area, at least one cart which can patrols said cart route and which is provided with a receiving means for receiving said information on position and a transmitting means for transmitting said sensor identification information received and cart identification information set individually, and a control house which is provided with a means for receiving said information on position and said cart identification information can to detect a present position of said cart which is patrolling said golf course, in which said control house is characterized by comprising a means for instructing driving which can judge on the basis of the cart identification information transmitted from another cart which is patrolling said cart route whether or not said cart and said another cart are situated within a given distance to obtain judgement results, and can perform instructions for permission or prohibition on driving to said cart on the basis of the judgement results.

[0016] According to a second aspect of this invention, there is provided a golflinks operation-control system of the first aspect of this invention, characterized in that an actualization of said means for instructing driving is constructed so as to be selected in said control house.

[0017] According to a third aspect of this invention, there is provided a golflinks operation-control system of the first aspect of this invention, characterized in that said means for
instructing driving is constructed so as to be actuated on the basis of a control signal transmitted from said cart.

[0018] According to a fourth aspect of this invention, there is provided a golflinks operation-control system which is provided with at least one sensor placed at a required position along a cart route on a golfcourse in which an information on position is individually set and which can transmit said information on position within a given area, at least one cart which can patrol said cart route and which is provided with a receiving means for receiving said information on position and a transmitting means for transmitting said sensor identification information received and cart identification information set individually, and a control house which is provided with a means for receiving said information on position and said cart identification information can to detect a present position of said cart which is patrolling the golfcourse, in which said cart is characterized by comprising a means for instructing driving which can judge, on the basis of a cart identification information transmitted from another cart which is patrolling said cart route and situated at least ahead of said cart, whether or not said another cart is situated within a given distance from said cart to obtain judgement results, and can perform instructions for permission or prohibition on driving to said cart on the basis of the judgement results.

[0019] According to a fifth aspect of this invention, there is provided a golflinks operation-control system of the fourth aspect of this invention, characterized in that an actuation of said means for instructing driving is constructed so as to be selected in said cart. According to a sixth aspect of this invention, there is provided a golflinks operation-control system of the fifth aspect of this invention, characterized in that said means for instructing driving is constructed so as to be actuated on the basis of a control signal transmitted from said cart.

[0020] According to this invention, a judgement can be made in the particular cart on the distance between the carts on the basis of a cart identification information transmitted from another cart, and can perform instructions for driving (permission or prohibition) on the basis of judgement results.

[0021] Further, since this invention can be realized by communication between the carts, it is possible to perform instructions for driving while controlling quantity of communication between the cart and the control house.

BRIEF DESCRIPTION OF THE DRAWINGS

[0022] For a more complete understanding of this invention may be had to the following detailed explanations in connection with the accompanying drawings, in which,

[0023] FIG. 1 is a view explaining a layout of a golflinks to which this invention is applied.

[0024] FIG. 2 is a schematic view explaining a construction of a golflinks operation-system of a working embodiment of this invention.

[0025] FIG. 3 is a block diagram explaining a construction of a sensor of a working embodiment of this invention.

[0026] FIG. 4 is a block diagram explaining a construction of a cart of a working embodiment of this invention.

[0027] FIG. 5 is a schematic view explaining an example of construction of a packet transmitted from each of a cart and a sensor according to a working embodiment of this invention.

[0028] FIG. 6 is a block diagram explaining a construction of a repeater of a working embodiment of this invention.

[0029] FIG. 7 is a block diagram explaining a construction of a control house of a working embodiment of this invention.

[0030] FIG. 8 is a schematic view explaining an example of a construction of a packet of data on permission or prohibition on driving transmitted from a control house of a working embodiment of this invention.

[0031] FIG. 9 is a schematic view explaining positions of each cart and sensor when an information on instructions for driving is generated in a working embodiment of this invention.

[0032] FIG. 10 is a view explaining timing of data transmitted from a cart on the basis of a trigger signal transmitted from a control house.

[0033] FIG. 11 is a flowchart explaining a stream of process in a control part of a control house when the mode changes to "log mode" in the event that the control part of the control house is a means for instructing driving.

[0034] FIG. 12 is a flowchart explaining a stream of process in a control part of a cart when the mode changes to "log mode" in the event that the control part of the control house is a means for instructing driving.

[0035] FIG. 13 is a flowchart explaining a stream of process in a control part of a cart when the mode changes to "log mode" in the event that the control part of the cart is a means for instructing driving.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0036] Preferred embodiments of this invention are described below.

[0037] FIG. 1 is a view explaining schematically a part of a golflinks to which a golflinks operation system of this invention is applied. In FIG. 1, a part of plural courses relatively near a control house is shown, and A course shows No. 1 to No. 3 holes, and No. 9 hole, B course shows No. 10 hole and C course shows No. 1 to No. 2 holes, and No. 9 hole.

[0038] In each course, a cart route R placed along holes is constructed so that, for example, passageway carts K, K1, K2, K3 (hereinafter referred simply to as cart) which are operated by the player for self-play can passageway thereon.

[0039] Sensors SA1 to SA3, sensors SB1, SB2, . . ., sensor SC1 to SCn which are means for transmitting a sensor identification information (an information on position) are set on the cart route R, for example, at the required positions of shoulder. These sensors are hereinafter referred simply to as sensor S when they are shown collectively.

[0040] The setting positions of the sensor S on each course are, for example, vicinity of teeing ground, fairway, green and so forth of each hole along the cart route R, or vicinity of branching point or intersecting point. Therefore, the
The number of the sensor $S$ required is set on the basis of layout of course and so forth and the sensor $S$ transmits the sensor identification information within a given area. That is to say, when the cart $K$ patrols along the cart route $R$ and goes within transmission area of a certain sensor $S$, it can receive the sensor identification information transmitted from the certain sensor $S$.

The cart $K$ is provided with a receiving means for the aforementioned sensor identification information, and a transmitting means for transmitting the sensor identification information received and a sensor identification information (hereinafter referred to as cart transmission data) which has been set previously in the cart $K$ to a control house $CH$.

And, according to this invention, when the mode changes to "fog mode", the distance between the particular cart $K$ and a cart situated ahead the particular cart $K$ is judged, and instructions for driving (permission or prohibition) can be performed on the basis of the distance. While "fog mode" is described hereinafter more in detail, there are two cases of judgement on the distance, that is, one is a case which is constructed so as to perform the judgement on distance by the control house $CH$ and the other is a case which is constructed so as to perform the judgement on distance by the cart by itself.

Repeater $LA1$, repeater $LA2$, repeater $LB$, and repeater $LC$ are set at the given positions on each course.

The repeater $L$ is set as a means for relaying the cart transmission data transmitted from the cart $K$ to the control house $CH$ and is constructed so as to receive the cart transmission data transmitted from the cart $K$ and, simultaneously, to transmit it to the control house $CH$. That is to say, the communication area of each repeater $L$ is set so as to cover the communication area of the control house $CH$.

The control house $CH$ is provided with an operation-control part comprising, for example, a computing apparatus so that a manager of a golflinks can grasp, for example, operation conditions of each cart $K$. A FIG. 2 is a view showing schematically a data communication channel between the control house $CH$, the sensor $S$ and the cart $K$ which are shown in FIG. 1.

The sensor $S$ is provided with a transmitting means, for example, weak radio wave and so forth and transmits the sensor ID and so forth which are packetized in a given format as the sensor transmission data $ST$, for example, in fixed cycle.

And, when the cart $K$ enters within a communication area in the vicinity of the sensor $S$, the cart $K$ receives the sensor transmission data $ST$ and packetizes the cart ID and the sensor ID and so forth and transmits the cart transmission data $KT$ directly or through the repeater $L$ to the control house $CH$. By mounting, for example, a transmitting means authorized as a small power type on the cart $K$, the cart $K$ dispenses with a radio communication manager and, simultaneously, communication within a range from approximately 500 m to 1 Km is possible. The process of the transmission of the cart transmission data $KT$ by each cart $K$ is performed in given timing on the basis of, for example trigger signal $Trg$ transmitted from the control house $CH$ as described later and received, for example through the repeater $L$.

The repeater $L$ is set at a place where the direct communication can not be performed because the cart $K$ is quite separate from the control house $CH$. And, the repeater $L$ is provided with a transmitter-receiver means authorized as a small power type mounted thereon so as to relay in sequence the cart transmission data $KT$ from the cart $K$ to the control house $CH$ and is set at a given position on the course.

The control house $CH$ is provided with an operation-control part $P$ in which the cart transmission data $KT$ received through an antenna $A$ is inputted, a monitor $M$ and so forth.

The operation control part $P$ is composed of, for example, a personal computer an so forth, and is provided with a small power type-receiving means for receiving the cart transmission data $KT$. An operation information on the hole generated on the basis of the cart transmission data $KT$ received in the receiving means is supplied to the monitor $M$.

In the golflinks operation-control system constructed as described above, this invention is constructed so that a means for instructing driving of a ball which is actuated when the mode changes to "fog mode" is set in the control house $CH$ or the cart $K$. And, in each case, instructions for driving are given depending on the present position of the cart $K$ judged on the basis of the cart transmission data $KT$ transmitted from the cart $K$. Examples of the constructions are described after explanation of an outline for the golflinks operation-control system.

An explanation is given below on the sensor $S$, the cart $K$, the repeater $L$, and the transmission part of the operation-control part which are shown in FIG. 2.

FIG. 3 is a view showing a part of circuit block of the sensor $S$.

The sensor $S$ is provided with a setting switch $S1$ for setting the sensor ID of the sensor $S$, individually. And, the sensor ID set by the setting switch $S1$ is supplied to the signal process part $S3$ through the control part $P2$, and is packetized by required signal process, and thereafter, is transmitted from, for example a transmitter-receiver part $S4$ for weak radio wave which is set as a transmitter-receiver means for transmitting and receiving weak radio wave. As to the timing of transmission, the transmission may be performed, for example, in timing in response to the trigger signal $Trg$ supplied from the control house $CH$, or may be performed in constant cycle by control of the control part $P2$.

The power source circuit $S5$ is comprised of a circuit having power energy supplied from the power source signal $S6$ including a battery (solar battery) or secondary battery which is set as a power source for the sensor $S$ as a given driving voltage.

FIG. 4 is a view showing a part of functional circuit block having to do with this invention which is mounted on the cart $K$.

The weak radio wave transmit-receive part $K1$ is constructed so as to receive the sensor transmission data $ST$ transmitted from the sensor $S$ or so as to transmit the trigger signal $Trg$ transmitted from the control house $CH$ to the sensor $S$. The sensor transmission data $ST$ received is left to the signal process part $K2$ for the required signal process, and then is supplied to the signal process part $K4$ through the
control part K3. And, the cart ID which has been set by the setting switch K5 to every cart individually is added by the setting switch K5 to the sensor transmission data ST supplied to the signal process part K4 to form a packet described hereinafter which is, thereafter, transmitted from the radio transmit-receive part K6 as the cart transmission data KT. The cart transmission data KT is usually transmitted to the control house CH as shown in FIG. 4. This is because that a partner code for restricting a communication partner to the control house CH has been set in the cart transmission data KT as described hereinafter.

[0059] In case where a driving instructing means of this invention is construed as the control part K3, when the mode changes to “fog mode”, the distance between the particular cart K and the cart K situated ahead of the particular cart K can be judged in the particular cart K on the basis of the cart transmission data KT transmitted from another cart K by performing a receiving process neglecting the partner code. And, instructions for driving can be given to the player who is making use of the particular cart K on the basis of the judgement results. The packet which constructs the cart transmission data KT is described hereinafter.

[0060] In case where a construction is adopted in which the means for instructing driving is set in the control house CH described hereinafter, when the mode changes to “fog mode”, the process for giving instructions for permission or prohibition on driving is carried out in the control part K3 on the basis of data on permission or prohibition on driving transmitted from the control house CH.

[0061] The radio transmit-receive part K6 receives a control signal for changing the mode to “fog mode” which is transmitted from the control house CH. And, the control signal received is supplied to the control part K3 through the signal process part K4 and the mode changes to “fog mode”. In this case, all carts present on the course change the mode to “fog mode” nearly simultaneously. That is to say, this case can be applied when, for example, the fog occurs in whole area of the golflinks. The memory K7 is set as a means for storing the sensor transmission data ST received when the cart K receives the sensor transmission data ST. The sensor transmission data ST stored in the memory K7 is retained until it receives the next sensor transmission data ST which is to be transmitted from another sensor S.

[0062] The operation part K8 is provided with, for example an operation key ad so forth by which the player making use of the particular cart can operate an operation, for example, setting of “fog mode”. And, the control part K3 which has detected an operation of the operation key performs the process for carrying out a control in response to the function of the operation key.

[0063] In case where the mode changes to “fog mode” by operation of the operation part K8 by the player making use of the cart K, the cart transmission data KT having setting conditions on “fog mode” (fog mode flag described hereinafter) is transmitted from the radio transmit-receive part K6 on the basis of the control by the control part K3 in order to inform the change to “fog mode” to the control house CH. That is to say, since the mode can be changed to “fog mode” in all the cart K individually, this invention can be applied also when the fog occurs partly in the golflinks.

[0064] In the control house CH which has received such cart transmission data KT, it can be grasped on the basis of the sensor ID and fog mode flag that which position on which course the “fog mode” is set, and, therefore, the manager of the golflinks can make a decision that the fog occurs in the vicinity of the place where the sensor S corresponding to the aforementioned sensor ID is set.

[0065] The voice synthesis/amplification part K9 is constructed so as to perform synthesis/amplification of voice signal for instructing whether or not driving is permitted on the basis of the instructions from the control part K3 in case, for example, where the mode changes to “fog mode”. The voice data for generating the voice signal can be stored in the necessary storage area which is set in, for example, the voice synthesis/amplification part K9. The voice signal generated by the voice synthesis/amplification part K9 is supplied to the speaker K10 and is outputted as voice. Further, a voice message other than “fog mode” can be outputted, if necessary, by setting the voice synthesis/amplification part K9 and the speaker K10.

[0066] The display driver K11 is constructed so as to perform a display control of the display part K12 which can perform the required display on the basis of the instructions from the control part K3. The display driver K12 is comprised of a lighting means, for example, LED (Light Emitting Diode), which is constructed so as to show to the player whether or not the mode has changed to “fog mode” or permission or prohibition on driving.

[0067] The power source circuit K13 is comprised of an accumulator or a converter of power source energy supplied from the power source K14 which is set as a power source of the aforementioned each block, for example, a battery or a secondary and so forth.

[0068] Next, an explanation is given below on the construction of each the sensor transmission data ST and the cart transmission data KT.

[0069] FIG. 5(a) is a view showing schematically a packet of the sensor transmission data ST transmitted from the sensor S, and FIG. 5(b) is a view showing schematically a packet of the cart transmission data KT transmitted from the cart K.

[0070] The sensor transmission data ST is comprised of an area DS1 of synchronous information Sync, an area DS2 of the sensor ID and so forth, and an error code detecting area DS3 for detecting a data error as shown in, for example FIG. 5(a). Accordingly, the same packet can be always transmitted from the same sensor S by, for example, weak radio wave and so forth, unless the manager of the golflinks changes the sensor ID.

[0071] In the cart K which receives the sensor transmission data ST, the packet shown in, for example, FIG. 5(b) is transmitted as the cart transmission data KT to the control house CH.

[0072] The cart transmission data KT is comprised of an area DK1 of synchronous information Sync, an area DK2 of a partner code for restricting a communication partner to the control house CH, an area DK3 of the cart ID of the golf cart K itself, an area DK4 of the sensor ID selected from the sensor transmission data ST received, an area DK5 of the fog mode flag showing setting conditions of “fog mode” by the cart K, and an error code detecting area DK6 for detecting data error.
Since the cart DK5 shows setting conditions of "fog mode" by the cart K itself, different signals are set when the said cart K changes to "fog mode" and when it releases "fog mode", respectively, (for example, "0" . . . release, or "1" . . . change).

Accordingly, the areas DK1, DK2 and DK3 are always fixed informations. And, the area DK4 is properly set depending on the setting conditions of "fog mode", and the cart transmission data KT on the basis of the sensor ID of the sensor transmission data ST received is formed in the area DK5 and is transmitted to the control house CH.

FIG. 6 is a view showing a part of circuit block of the repeater L.

The radio transmit-receive means part LI is constructed so that it can receive and relay the cart transmission data KT transmitted from the cart K to transmit to the control house CH, or so that it can relay the trigger signal Trg or the control signal of "fog mode" from the control house CH to transmit to the cart K.

The power source circuit LI3 is comprised of an accumulator or a converter of power source energy supplied from the power source LI4 of a battery or a secondary and so forth which is set as a power source of the repeater L.

FIG. 7 is a view showing a part of circuit block of the operation-control part I.

The cart transmission data KT (cart ID, sensor ID) transmitted from the cart K through, for example, the repeater L, is supplied to the radio transmit-receive part 2 through the antenna A. A required signal process is applied to the cart transmission data KT received by the radio transmit-receive part 2 in the signal process part 3 to demodulate the cart ID and the sensor ID and the cart transmission data KT the cart ID and the sensor ID of which were demodulated is supplied to the control part 4.

That is to say, in the control house CH, the present positions of all the carts which are present on the course can be grasped, and the required process for performing the operation-control on golf play is performed on the basis of the informations (cart ID, sensor ID) received, and simultaneously, and operation informations on displaying the informations is produced.

In case where the control part 4 is constructed as a driving instructing means, the distance between the required carts can be judged on the basis of the cart transmission data received to obtain judgement results, and instructions for permission or prohibition on driving can be transmitted on the basis of the judgement results thus obtained.

And, the control part 4 can grasp on the basis of the fog mode flag of the cart transmission data KT the position on the course where "fog mode" is set, even in case where the control part 4 is constructed as the means for instructing driving.

The input part 5 is comprised of, for example, an input apparatus such as a keyboard, and is constructed so that, for example a manager of the golf links can set, for example, "fog mode". And, the conditions on whether or not "fog mode" has been set can be confirmed by, for example, the display part 10 not shown in the Figure.
[0095] When the fog occurs in a golf links, it is difficult for the player to confirm the forward playing conditions by visual observation from his present standing position. Therefore, when the player drives a ball rashly under such conditions, there is a risk of hurting a party playing ahead of the player, and, simultaneously, there is risk of disturbing the play. Then, this example is provided with “fog mode” in order to perform the instructions for permission or prohibition on driving in case where the distance between the party and another party playing ahead of the former is 250 yards or less, assuming that a case where the distance between the party and another party playing ahead of the former is, for example, 250 yards and above is safe. Therefore, the instructions for permission or prohibition on driving can be given to the player by detecting the position of the cart K situated ahead of the player by changing the mode to “fog mode” by the required operation in case where it is difficult for the player to confirm his front by visual observation because of the fog.

[0096] Under a state shown in FIG. 9, when the control data for changing to “fog mode” are transmitted as data on permission or prohibition on driving from the control house CH, the cart Ka, the cart Kb, and the cart Kc are changed to “fog mode”, respectively. When the mode has been changed to “fog mode”, for example, the cart Ka transmits the cart transmission data KT having the sensor ID of the nearest sensor SA 4, and after the transmission, it stands by for receiving the data on permission or prohibition on driving which is based on the information on the position of a cart situated ahead the cart Ka and which is transmitted from the control house CH. This is the same with respect to the cart Kb and cart Kc, that is to say, the information on the position of each cart can be grasped in the control house CH on the basis of the cart transmission data KT transmitted from each cart.

[0097] Next, an explanation is given below according to FIG. 10 on the timing of transmission of the cart transmission data KT by the cart K on the basis of the trigger signal Trg transmitted from the control house CH directly or through the repeater L.

[0098] FIG. 10(a) shows the timing of the trigger signal Trg transmitted from the control house CH as shown in FIG. 10(a), the trigger signal Trg is transmitted in every period T. That is to say, the trigger signal is received in each cart in every period T.

[0099] Each cart transmits the cart transmission data Ki comprising, for example, the sensor ID on the basis of the trigger signal Trg received, and the timing of transmission in each cart is shown in FIGS. 10(b) to 10(d).

[0100] That is to say, the timing of transmission of the cart transmission data KT within a period T is set in each cart, and the cart transmission data KT transmitted from each cart can be received in the control house CH in sequence without duplication.

[0101] And, since the timing of transmission is different in each cart, after the transmission of the cart transmission data in the particular cart is finished, the cart transmission data KT transmitted from another cart can be received. That is to say, the timing of receiving process is timing different from that of transmission process.

[0102] FIG. 10(g) shows, for example, a preparatory block which prepares for a case where, for example, the number of carts used in the golf links increases, which is not the timing of transmission of the cart transmission data KT at the present moment. Therefore, the present timing is timing when all the carts do not transmit. That is to say, since the control house CH performs the transmission of the data on permission or prohibition on driving in this timing, each cart can receive the data on permission or prohibition on driving.

[0103] In the control house CH, the present position of each cart is detected on the basis of the sensor ID of the cart transmission data KT received in such timing, and in this example, it is judged that, for example the cart Kb is situated at a position within 250 yards from the cart Ka. And, the packet shown in FIG. 8 is constructed on the basis of the judgement results, and is transmitted as data on permission or prohibition on driving (prohibition) to the cart Ka. In this case, since the data on permission or prohibition on driving is information in which, for example, the cart Ka is specified, it is transmitted with an identification information, for example, a partner code (cart ID) and so forth in order to perform demodulation only in the cart Ka.

[0104] That is to say, in the example shown in FIG. 9, the data on permission or prohibition on driving (prohibition) is an effective information only for the cart Ka, and the process for instructing prohibition on driving to the player is performed in the control part of the cart Ka which receives the information.

[0105] The data on permission or prohibition on driving (prohibition) to the cart Ka is transmitted until the cart ID of the sensor SA 5 is not detected from the cart transmission data KT transmitted from the cart Kb. And, when the cart Kb is beyond the communication area of the sensor SA 5 and cannot receive the sensor ID of the sensor SA 5, the control house CH judges that the cart Kb moves to be situated at the position, for example, 250 yards away from the cart Ka, and transmits the data on permission or prohibition on driving for approving driving to the cart Ka.

[0106] In the cart Ka, a process for instructing permission on driving is performed by receiving the data on permission or prohibition on driving (prohibition).

[0107] The cart Kc situated ahead of the cart Kb transmits the sensor ID of the sensor SA 7 to the cart transmission data KT in duplication. Thereby, it can be judged in the control house CH that the cart Kb is situated in the vicinity of the sensor SA 5 and the cart Kc is situated in the vicinity of the sensor SA 7. That is to say, it can be judged in the control house CH that the cart Kc is situated at the position, for example, 500 yards away from the cart Kb, and the data on permission or prohibition on driving (permission) for approving driving is transmitted to the cart Kb.

[0108] In the cart Kb, a process for instructing permission on driving is performed by receiving the data on permission or prohibition on driving (permission).

[0109] In such a manner as described above, in case of “fog mode”, the control house CH judges the distance between the particular cart and another cart situated ahead of the particular cart on the basis of the sensor ID transmitted as the cart transmission data KT and transmits the data on permission or prohibition on driving to the given cart. And, each cart receives the data on permission or prohibition on driving, depending on which each cart informs permission
on driving or prohibition on driving, for example, on display or in voice to the player making use of the said cart.

[0110] And, since “fog mode” is set in the control house CH, it is possible to inform all the carts present on the hole that the mode has been changed to “fog mode”. That is to say, each cart can obtain either information on permission or information on prohibition as data on permission or prohibition on driving.

[0111] While the distance between each sensor which is placed in order to judge the distance between the carts is shown to be, for example 250 yards, which is only a rough measure indicating that when the player drives a ball from the position where the cart is situated, there occurs no trouble to another player who plays ahead of the aforementioned cart.

[0112] Further, while a case is shown in the example shown in FIG. 9 where two adjacent carts S are placed at positions 250 yards away each other, in case where plural sensors are placed within 250 yards due to several kinds of conditions such as a layout of course and so forth, instructions for permission or prohibition on driving can be performed on the basis of, for example, the sensor ID of the sensor S placed at a position 250 yards away from another sensor S.

[0113] By the way, when “fog mode” has been set in the control house CH, the data on permission or prohibition on driving corresponding to the distance between the carts is applied to all the carts situated on the course, however it is applied to only the cart which enters the vicinity of the sensor where the fog occurs, in such a case where the fog occurs in a part of the course.

[0114] Referring to FIG. 9, in a case where the fog occurs in the vicinity of the sensor SA4, when the “fog mode” has been set by the cart which enters the vicinity of the sensor SA4, that is to say, the cart Ka, it is possible to recognize on the basis of the cart transmission data KT transmitted from the cart Ka in the control house CH that the “fog mode” has been set in the vicinity of which sensor.

[0115] That is to say, in the control house CH, the transmission of the data on permission or prohibition on driving may be performed by setting the given partner’s code so that the particular cart which transmits the cart transmission data KT having the sensor ID of the sensor SA4 is an object. Accordingly, since the instructions as to driving are not performed at the positions other than those where the fog occurs, it is possible not to give needless informations to the player situated at the position where the player can play by visual observation.

[0116] It may be assumed that there is a case where the sensor S must be placed at an interval of, for example, 250 yards or below because of the conditions such as a layout of the course and so forth. In such a case, as to the sensor which has something to with detection of the position of the cart Ka at the time of “fog mode”, it is not necessary to use all the carts, but the instructions for driving may be produced on the basis of the sensor ID of the sensor S placed at a given interval of, for example 250 yards. That is to say, in the example shown in FIG. 9, even if a sensor not shown in FIG. 9 is placed between the sensor SA4 and the sensor SA5, the data on permission or prohibition on driving may be produced on the basis of the sensor ID from the sensor SA4 and the sensor SA5.

[0117] While the “fog mode” is set from the control house CH or the cart K when the player can not confirm his front on the course by visual observation, the setting of the “fog mode” can be released similarly from the control house CH or the cart K in a case where the fog clears off and visibility is good.

[0118] Next, an explanation is given below on the process actions of each of the control house CH and the control part of the cart K when “fog mode” is carried out in the control house CH.

[0119] First, the process action of the control part 4 of the control house CH is explained referring to the flowchart of FIG. 11.

[0120] When a changing operation to “fog mode” by the input part 5 is detected (A001), a process for changing to “fog mode” is performed (A002). The changing operation here is the process for informing the change to “fog mode”, for example on display or in voice. Further, a process for transmitting a control signal (changing signal) showing the change to “fog mode” to the cart K situated on a course (A003). Thereby, it is possible to confirm the change to “fog mode” in the cart K which receives the changing signal. The process in the cart K which receives the changing signal is explained hereinafter referring to the flowchart of FIG. 12.

[0121] When the mode has changed to “fog mode”, it is judged in the control house whether or not the cart transmission data KT has been received (A004). Since the cart transmission data KT is the timing as previously explained in the flowchart of FIG. 10, the timing of receiving in the control house CH is almost similar thereto. That is to say, in the control house CH, the cart transmission data KT from all the carts can be received with the given time deviation. And, the informations on position of each cart situated on the course can be obtained on the basis of the sensor ID included in the cart transmission data KT. While the reception of the cart transmission data KT is performed in usual time other than “fog mode” in the control house CH, it is shown herein as a process step for “fog mode” as a matter of convenience.

[0122] When the cart transmission data KT is received, a comparison between the sensor ID of the cart transmission data KT of each cart K received is made (A005). Thereby, the position informations can be received on that each cart K is situated in the vicinity of which sensor S, and it is possible to grasp a mutual relationship of position between each of the cart K. Further, the distance between each of the cart K can be judged on the basis of the mutual relationship of position (A006). The judgement of the distance between each of the cart K is carried out so as to perform individually for each cart, and the distance between the particular cart and the cart situated ahead of the particular cart judged from the sensor ID can be obtained.

[0123] Here, it has been judged that another cart is situated ahead of the particular cart, for example within 250 yards from the particular cart, the data on permission or prohibition on driving (prohibition) for instructing that driving is not permitted at the present time is transmitted to the particular cart (A007). Here, an object of transmission of the data on permission or prohibition on driving (prohibition) is the cart Ka for example, in the example shown in FIG. 9.

[0124] When it has been judged that another cart is situated at a position ahead of the particular cart, for
example beyond 250 yards from the particular cart, the data on permission or prohibition on driving (permission) for instructing that driving is permitted is transmitted to the particular cart (A008).

[0125] In this case, an object of transmission of the data on permission or prohibition on driving (permission) is the cart Kb in the example shown in FIG. 9.

[0126] As explained above, while each process is performed to each cart individually in the steps A006 to A008, the desired data on permission or prohibition on driving can be transmitted to the particular cart by setting informations for specifying the cart as a partner code in case where the transmission of the data on permission or prohibition on driving is performed. And, the timing of the transmission of the data on permission or prohibition on driving is timing when each cart K can receive, that is, each cart K does not perform the transmission, and, for example, is the timing corresponding to the preparatory block (g) in the flowchart shown in FIG. 10. Thereby, all the carts situated on the course can receive the data on permission or prohibition on driving (permission or prohibition).

[0127] When the transmission of the data on permission or prohibition on driving is performed at the step A007 and the step A008, a judgement is made on whether or not an operation for releasing “fog mode” is detected (A009), and when “fog mode” is released, a process for releasing “fog mode” is performed (A100).

[0128] The process for releasing here is the one which informs the release of “fog mode”, for example, by display message or voice message. Further, a process of transmission of control signal (a releasing signal) showing the release of “fog mode” is performed to the cart K situated on the course (A011). Thereby, it can be grasped in the cart K whether or not “fog mode” has been released.

[0129] FIG. 12 is a flowchart explaining a process action of the control part K3 in the cart K.

[0130] When the cart K is in a state of actuation and is present on the course, it stands by for transmission of the change signal from the control house CH (A101). In such state, a process for transmitting the cart transmission data KT is performed on the given timing on the basis of the trigger signal Trg shown in FIG. 10 from the control house CH while waiting for the change signal.

[0131] When the change signal from the control house CH has been detected, a process for changing to “fog mode” is performed (A102). The process for changing to “fog mode” is the one which performs the required displaying process by, for example, the display part K12 in order to inform the change to “fog mode” of the cart K to a user making use of the cart K or which performs output process of voice message by, for example, the speaker K10 for informing that a forward visibility is not good because of the fog. Thereby, the player making use of the cart can confirm the change to “fog mode”. Also, in the explanation described hereinafter, an explanation is given also on the displaying process and the voice output process that the required information are performed by, for example, the display part K12, the speaker K10 and so forth.

[0132] After the mode has changed to “fog mode”, a judgement is made on whether or not the data on permission or prohibition on driving transmitted from the control house CH is received (A103), and when the data on permission or prohibition on driving is received, the contents of the data on permission or prohibition on driving is identified (A104).

[0133] Here, when the data on permission or prohibition on driving received is prohibition on driving, the required displaying process and voice output process for instructing prohibition on driving to the player are performed (A105). And, when the data on permission or prohibition on driving received is permission of driving, the required displaying process and voice output process for instructing permission of driving to the player are performed (A106).

[0134] When a process is performed on the basis of the data on permission or prohibition on driving at the steps A105 and A106, a judgement is made on whether or not a releasing signal for releasing “fog mode” transmitted from the control house has been received (A107). And, when the releasing signal has been received, a releasing process (display, voice) for releasing “fog mode” is performed (A108).

[0135] And, when the releasing signal is not received at the step A107, the reception of the data on permission of prohibition on driving is waited at the step A103.

[0136] The flowcharts shown in FIGS. 11 and 12 are examples in which processes for changing to “fog mode” are performed in the control house CH and “fog mode” is applied to all the carts.

[0137] Therefore, in case where “fog mode” is set by, for example, the cart and “fog mode” is applied to the cart situated in a part of the course, the process at the step A001 shown in FIG. 9 is the one in which a judgement is made on whether or not the fog mode flag of the cart transmission data KT transmitted from the cart is “ON”. That is to say, only the particular cart the fog mode flag of which is “ON” is selected as an object for “fog mode” from plural carts. That is to say, a judgement on the distance between the carts at the step A006 is made for only the aforementioned particular cart, and a transmitting process for the data on permission or prohibition on driving at the step A007 and step A008 is also performed for only the aforementioned particular cart.

[0138] Also in the flowchart of the control part of the cart K shown in FIG. 12, a changing/releasing process at the step A001 and step A107 is the one in which a judgement is made on whether or not an operation for changing/releasing process has been performed by the control part of the cart K. (The cart K is provided with a means for instructing driving)

[0139] An explanation is given below on an example of generation of the informations for instructing permission or prohibition on driving. In this case, the control part K3 of the cart K is constructed as a means for instructing driving.

[0140] In the example shown in FIG. 9, in case where the fog occurs in the vicinity of the cart K, the player making use of the cart Ka can hardly confirm his front by visual observation. When the cart Ka changes its mode to “fog mode” in such a case, the cart Ka can receive the cart transmission data KT transmitted from another cart. Usually, the cart transmission data KT transmitted from each cart K specifies, for example, the control house CH as an object for transmission by setting of, for example, a partner code,
however, the cart transmission data KT transmitted from another cart K can be received in defiance of the partner’s code by changing to “fog mode” and demodulated.

0141] Adapting the matters described above to the cart Ka, also the cart transmission data KTb transmitted, for example, from the cart Kb can be received, if the cart Ka changes to “fog mode”. That is to say, the cart Ka can judge on the basis of the sensor transmission data ST from the sensor SA4 that the cart Ka itself is situated in the vicinity of the sensor SA4 at the present moment, and, simultaneously, can receive the cart transmission data KTb from the cart Kb to grasp that the cart Kb is situated in the vicinity of the sensor SA5.

0142] That is to say, the cart Ka can judge in this example that another cart (cart Kb) is situated at a position approximately 250 yards ahead of the present position, and can inform the judgement results as informations for instructing driving to the player, for example by display, voice and so forth. That is to say, instructions for prohibition on driving are performed in the cart Ka.

0143] In case where the cart Kb moves forward from this state to be distant from the cart Ka or where the cart Kb approaches the sensor SA6 and transmits the cart transmission data KTb having the sensor ID of the sensor SA6, the cart Ka can judge that another cart is not situated at a position in the vicinity of 250 yards ahead of the present position of the cart Ka. Therefore, instructions for permission on driving are performed in the cart Ka.

0144] And, if “fog mode” is set in the cart Kb, the cart transmission data KTc from the cart Kc situated at a position ahead of the cart Kb can be received. In this case, the cart transmission data KTc is the one which has the sensor ID of the sensor SA7. It is, therefore, possible to judge that another cart (cart Kc) is situated at a position approximately 500 yards away from the cart Kb, and instructions for permission on driving are performed.

0145] Since the cart transmission data KT is performed in the timing shown in FIG. 10, when the mode changes to “fog mode”, the particular cart K can receive the cart transmission data KT transmitted from another cart K in the timing different from that of transmitting its own cart transmission data KT as shown in FIG. 9. And, the distance between the particular cart and the cart situated ahead of the particular cart can be grasped on the basis of the setting position of the sensor ID by comparing the sensor ID included in the cart transmission data KT received with the sensor ID of the sensor transmission data ST received by the particular cart.

0146] When the mode changes to “fog mode”, if the cart transmission data KT from another cart can not be received, it is possible to judge that another cart is situated at a position beyond a communication area. That is to say, in case where a radius of communication area of the cart is, for example, 250 yards and over, it is also possible to approve driving when the cart transmission data KT can not be received.

0147] When the fog clears off while the cart K is moving, the forward conditions can be confirmed by visual observation, and, therefore, instructions for permission or prohibition on driving are unnecessary. In such a case, the player making use of a cart can release “fog mode” in the said cart.

0148] As explained above, “fog mode” can be set in each cart, in case where the fog occurs, for example, in a part of a golf links. However, in case where the fog occurs, for example in the whole area of the course or whole area of the golf links and the control house CH can confirm the occurrence of the fog, the control house transmits a changing signal to all the carts. Thereby, a process for changing to “fog mode” is performed in the cart which receives the changing signal. Therefore, for example all the carts present in the course can receive the cart transmission data KT from another cart to perform YES or NO instructions for driving.

0149] FIG. 13 is a flowchart explaining a process action relating to “fog mode” in the control part of the cart K. The cart K transmits the cart transmission data KT having the required contents on the basis of the trigger signal from the control house CH regardless of “fog mode” while it is at work, which is not, however, shown in the steps in the flowchart shown in FIG. 13.

0150] First, when the cart K is in a state of operation, a detection is performed on whether or not an operation for changing to “fog mode” has been performed (S001), and when it is detected that the operation has been performed, a process for changing to “fog mode” is performed (S002). The process for changing to “fog mode” corresponds to the process at the step A102.

0151] When the operation for changing to “fog mode” is not detected at the step S001, a judgement is made on whether or not the changing signal from the control house CH has been detected (S003), and the process for changing to “fog mode” is performed, also when the changing signal is detected (S002).

0152] When the mode is changed to “fog mode” in such a manner as described above, a judgement is made on whether or not the cart transmission data KT transmitted from another cart K has been detected (S004). When the cart transmission data KT is detected here, the comparison of the sensor ID of the cart transmission data KT received with the sensor ID of the sensor transmission data ST received by the particular cart K is made (S005), and a judgement on the relationship of the position between the particular cart K and another cart K is made on the basis of the relationship of the position of the sensor S which can be judged by the sensor ID (S006).

0153] When it is judged here that another cart K is situated ahead of the particular cart K, a judgement on the distance between the particular cart K and another cart K is made on the basis of the relationship of the position of the sensor S (S007), and when it is judged that the distance is, for example, 250 yards or less, the instructions for prohibition on driving is performed (S008). The instructions for prohibition on driving in this case are, for example a required display process or an output process of voice message to inform that driving is not performed, since another cart K is situated ahead of the particular cart K.

0154] And, when it is judged that the distance between the particular cart K and another cart K is 250 yards and more, instructions for permission of driving is performed (S009). The instructions for permission on driving in this case are, for example, a required display process or an output process of voice message to inform that a player should play while he is confirming his front.
The permission of driving at the step S009 may be performed, for example, when the cart transmission data KT of another cart K can not be received at the step S004, namely, when another cart K is so quite distant away from the particular cart K that communication is unfeasible, or may be performed on condition that it is judged at the step S006 that another cart K is situated back the particular cart.

When the instructions for permission of driving is performed at the step S008 or step S009, a judgement is made on whether or not an operation for releasing “fog mode” has been performed in the particular cart K (S010). When the operation for releasing “fog mode” is detected here, a process for releasing “fog mode” is performed (S011). Further, according to this invention, the cart is provided with a means for instructing for driving which is able to judge whether or not another cart is situated within a given distance from the particular cart on the basis of the cart transmission data transmitted from another cart patrolling a cart route to obtain judgement results and which is able to perform the instructions for permission or prohibition on driving on the basis of the judgment results thus obtained.

Accordingly, even when the forward visibility is too bad to confirm the front by visual observation because of the fog, instructions for driving can be performed on the basis of the position of the cart.

Further, according to this invention, since it is possible to grasp the position of another cart by communication between the carts, an operation-control of the golflinks can be performed while cutting down communication between the carts and the control house.

Further, according to this invention, it can be performed by either the cart or the control house to or not to perform the instructions for permission or prohibition on driving by a means for instructing driving. For example, when the fog occurs in a part of a golflinks, the cart situated at the part can actuate by itself the means for instructing for driving. That is to say, the cart situated at a position where no fog occurs can operate as usual.

Further, according to this invention, for example when the fog occurs in the whole area of the golflinks, the means for instructing driving mounted on all the carts can be actuated simultaneously by transmitting a required signal from the control house. Similarly, all the carts can perform simultaneously also a termination of the means for instructing driving. In this case, since it is not necessary for each cart to change to “fog mode” individually, it is advantageous for the player to save himself from operating for changing to “fog mode”.

What is claimed as new and as desired to be secured by Letters Patent of the U.S. is:

1. A golflinks operation-control system which is provided with;

   a control house which is provided with a means for receiving said information on position and said cart identification information to detect a present position of said cart which is patrolling the golfcourse, wherein said control house is characterized by comprising a means for instructing driving which can judge whether or not said cart and said another cart are situated within a given distance on the basis of a cart identification information transmitted from another cart which is patrolling said cart route to obtain judgement results,
and can perform instructions for permission or prohibition on driving to said cart on the basis of the judgement results.

2. A golfflinks operation-control system described in claim 1, characterized in that an actuation of said means for instructing driving is constructed so as to be selected in said control house.

3. A golfflinks operation-control system described in claim 1, characterized in that said means for instructing driving is constructed so as to be actuated on the basis of a control signal transmitted from said cart.

4. A golfflinks operation-control system which is provided with,

at least one sensor placed at a required position along a cart route on a golfcourse in which an information on position is individually set and which can transmit said information on position within a given area, at least one cart which can patrol said cart route and which is provided with a receiving means for receiving said information on position and a transmitting means for transmitting said sensor identification information received and cart identification information set individually, and a control house which is provided with a means for receiving said information on position and said cart identification information to detect a present position of said cart which is patrolling the golfcourse, wherein said cart is characterized by comprising a means for instructing driving which can judge, on the basis of a cart identification information transmitted from another cart which is patrolling said cart route and situated at least ahead of said cart, whether or not said another cart is situated within a given distance from said cart to obtain judgement results, and can perform instructions for permission or prohibition on driving to said cart on the basis of the judgement results.

5. A golfflinks operation-control system described in claim 4, characterized in that an actuation of said means for instructing driving is constructed so as to be selected independently in said cart.

6. A golfflinks operation-control system described in claim 4, characterized in that said means for instructing driving is constructed so as to be actuated on the basis of a control signal transmitted from said control house.