

Exemplary Patent Claims

The following are exemplary claims selected from each of the Avidasports patents as respectively indicated:

1. A method of facilitating fast data processing at a master station controller of swimming data collected with swimmer devices worn on a plurality of swimmers swimming, the method comprising:

enabling the master station controller to instruct the swimmer devices when to transmit the swimming data over one or more wireless channels for receipt and processing by the master station controller, including instructing the swimmer devices to transmit swimming data during transmission windows assigned such that no more than one of the swimmer devices attempts to transmit swimming data over the same one of the one or more wireless channels at the same time;

enabling the master station controller to instruct a first swimmer device of the swimmer devices attempting to transmit over the same channel to transmit swimming data during a first transmission window, at least a portion of the first transmission window occurring while this first swimmer device is submersed below a water surface such that the first swimmer device is unable to completely transmit a first set of swimming data collected prior to the first transmission window, the first transmission window having a duration equal to a first length;

enabling the master station controller to instruct the first swimmer device to transmit swimming data during a second transmission window, the second transmission window occurring after the first transmission window while the first swimmer device is above the water surface, the first swimmer device desiring to transmit any non-transmitted portion of the first set of swimming data and a second set of swimming data collected after the first transmission window during the second transmission window, the second transmission window having a duration equal to the first length;

in the event the first swimmer device is unable to completely transmit any non-transmitted portion of the first and second sets of swimming data during the second transmission window, enabling the master station controller to instruct the first swimmer device to transmit at least any non-transmitted portion of the first and second sets of swimming data during a third transmission window immediately following the second transmission window, the third transmission window having a duration equal to a second length, the second length being greater than the first length; and

shortening a fourth transmission window for the first swimmer device to transmit a third set of swimming data from the first length to a third length in the event the first swimmer device fails to begin transmitting the third set of swimming data within a first amount of time occurring after a beginning of the fourth transmission window, the third set of swimming data being at least partially collected by the first swimmer device prior to the first transmission window.

14. A non-transitory computer-readable medium having a plurality of non-transitory instructions operable with a controller to facilitate fast data processing of performance-metric data collected by swimmer devices worn on a plurality of swimmers while swimming, the swimmer devices being configured to wirelessly transmit the performance-metric data to the controller, the non-transitory instructions being sufficient for:

instructing the swimmer devices when to transmit the performance-metric data during assigned transmission windows;

instructing a first swimmer device of the swimmer devices to transmit a first set of performance-metric data during a first transmission window, the first transmission window beginning while this first swimmer device is submersed below a water surface; and

skipping the first transmission window assigned to the submerged first swimmer device, and thereafter, instructing the first swimmer device to transmit a second set of performance-metric data during a second transmission window, the second transmission window occurring after the first transmission window while the first swimmer device is above the water surface, the first swimmer device desiring to transmit any non-transmitted portion of the first set of performance-metric data and the second set of performance-metric data during the second transmission window; and

in the event the first swimmer device is unable to completely transmit any non-transmitted portion of the first and second sets of performance-metric data during the second transmission window, instructing the first swimmer device to transmit at least any non-transmitted portion of the first and second sets of performance-metric data during a third transmission window immediately following the second transmission window.